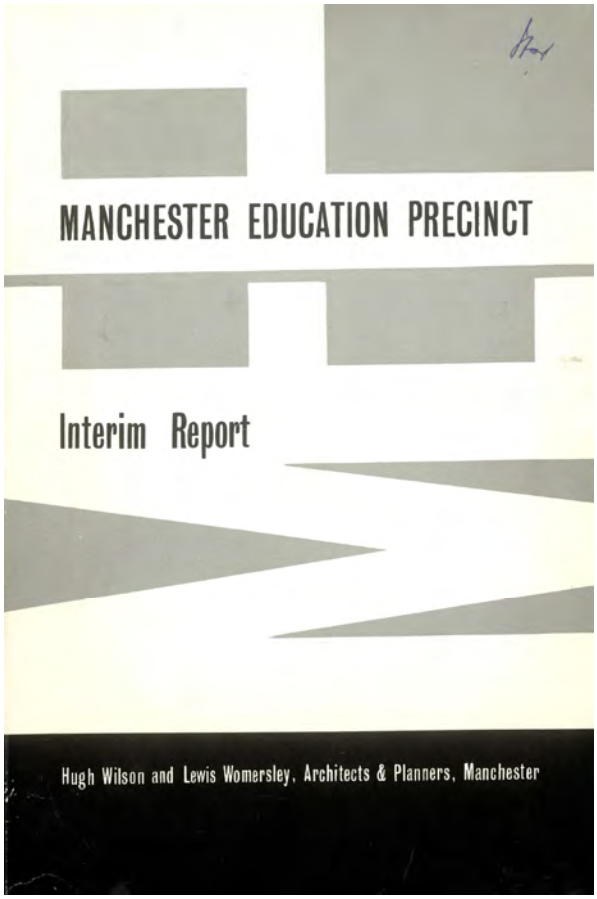

Manchester Education Precinct, Interim Report 1964

MANCHESTER EDUCATION PRECINCT

Interim Report

Hugh Wilson and Lewis Womersley, Architects & Planners, Manchester

MANCHESTER EDUCATION PRECINCT

INTERIM REPORT

OF

PLANNING CONSULTANTS

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22 Cumberland Street - Manchester 3

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INDEX

1. INTRODUCTION

This Interim Report and Appendices are submitted in advance of the full Report on the survey and proposals to be included in the overall plan for the Precinct and set out the general principles on which the concept is being developed. The information now available from the survey is set out in later sections of the Report. Inevitably this cannot be complete in many respects but it is sufficient to indicate the main lines of the proposals, the major allocations of land and the general framework of the communications pattern. All these proposals are, of course, subject to amendment as survey and planning studies proceed in greater depth. It is hoped, however, that if this general statement of intentions is acceptable to the Joint Committee it can form the basis for more detailed discussions and consideration of the many aspects of this important development.

During the preparation of this Interim Report advice has been obtained from Colin Buchanan and Partners on the road and traffic aspects of the proposals and their Preliminary Report is included as Appendix B.

The Manchester Education Precinct represents one of the great challenges of urban redevelopment in a major city at this time. Although opinions may differ on the considerable amount of work already carried out, the opportunities that still exist are perhaps unequalled in any city in Europe; there is a possibility of not only creating a fine group of buildings and inter-related spaces worthy of a great educational centre but also of achieving a relationship between 'town and gown' which could be unique in its scope and influence.

2. BASIC PLANNING PRINCIPLES

The task of preparing the planning proposals for the Precinct has not been approached with any preconceived solutions in mind but rather with a series of basic principles which it is believed should be applied in the planning process for a major group of educational buildings. These requirements can be summarised as follows:

1. Town planning in the 1960s must have regard to a high level of car ownership and car usage and the communications system must be designed accordingly. At the same time there must be maximum separation of pedestrians and vehicles throughout the Precinct with a separate footpath system to enable people to walk about without coming into contact with main traffic. This is particularly important in a University which should be a meeting place for people and ideas and where chance encounter is such an important feature of academic life.

2. A reasonable amount of open space should be created in the Precinct. The density of building within the limited area is bound to be high and, therefore, the provision of open space becomes all the more important; particularly so in Manchester since this is a city which tends to lack major open spaces within its closely built up central area and the immediate surroundings.

3. The planning proposals should be so evolved that the maximum flexibility in the use of buildings and sites is possible. This is vitally important at the present time when future academic organisation cannot be foreseen for more than a limited number of years.

4. A satisfactory social organisation should be possible within the Precinct with particular reference to the numbers living in the area. There should be the maximum use of facilities throughout the twenty four hours, contributing to the general liveliness of the whole area.

5. There should be maximum integration of City development and Precinct development.

6. The need to create within the Precinct an environmental area, as defined by Professor Colin Buchanan, in such a way that the major flows of through traffic are removed.

7. The plan should form a basis for development with a coherent structure which can be easily appreciated by those who work and live in and visit the Precinct and a proper urban character should be achieved with the correct relationship between buildings and landscape.

These general principles have been applied to the site conditions and with regard to the total accommodation to be provided. As there are a number of urgent building projects in various stages of planning, the procedure which has been adopted is as follows:

(a) To make a rapid assessment of the whole situation in the Precinct.

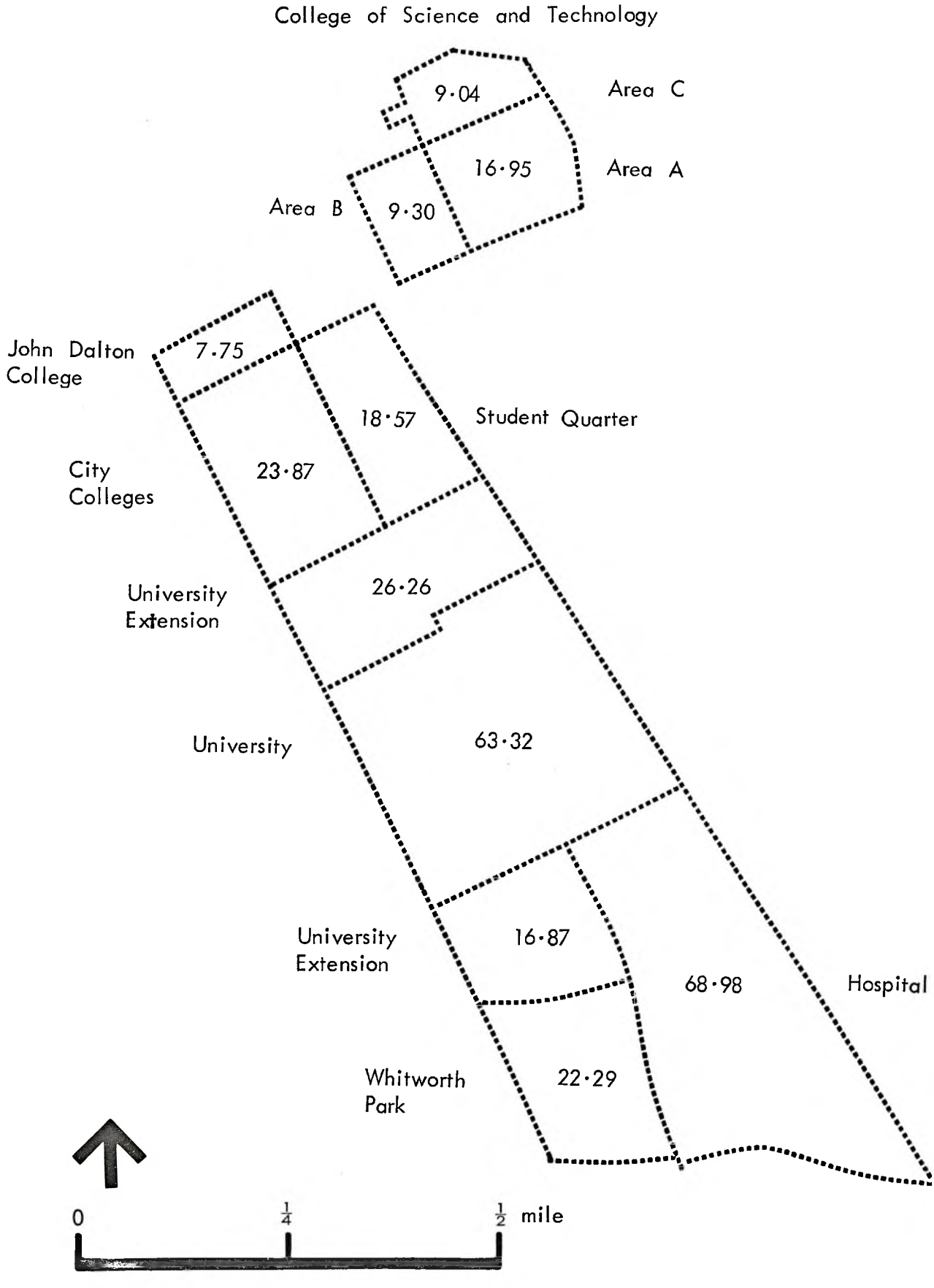
(b) To formulate a plan, conceptual in nature, setting out the major theme of the development.

(c) To reach decisions on the urgent projects to allow detailed planning to proceed.

(d) To initiate a programme of longer term survey and study to provide a basis for the development of the plan.

(e) To analyse this information to achieve an ordered building programme.

(f) To evolve techniques to enable revisions to be made to the plan in response to changing circumstances.



1. GROSS ACREAGES OF SITES - TOTAL 283·20

3. THE SITE

The Precinct area is about one-third of a mile wide and one and a quarter miles long, comprising some 280 acres (fig. 1). Oxford Road runs down the middle and it is bounded by Upper Brook Street to the east and Cambridge Street to the west, with an extension to London Road and Whitworth Street at the north east corner to include the existing sites of the College. At the northern end the Precinct extends to the central area of Manchester and at the south to Oxford Place and Whitworth Park. The land is generally flat.

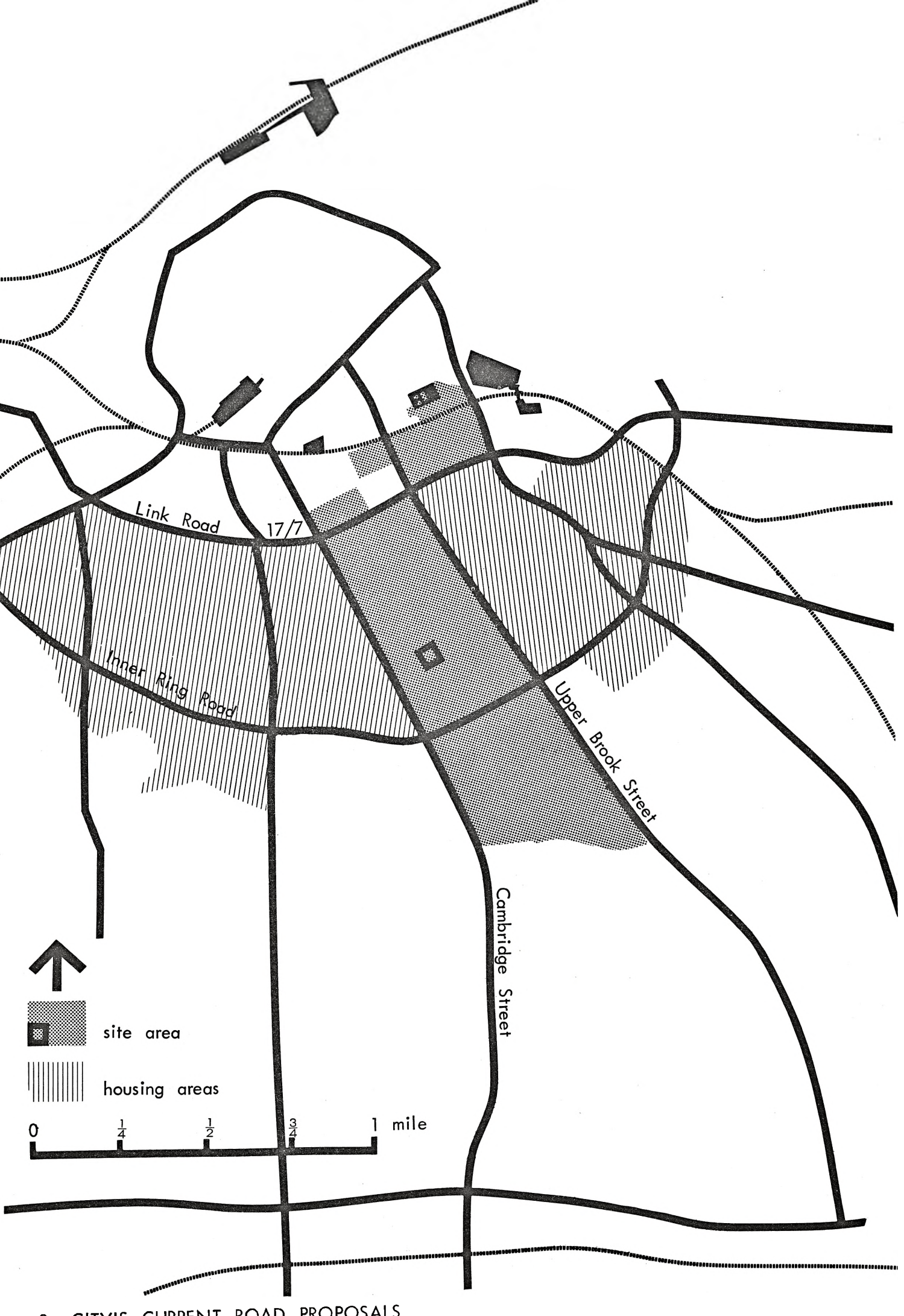
Traffic is considerable on the north - south routes and particularly on Oxford Road which is used by public transport, local and through traffic at such a density as to effectively divide the Precinct in two (fig. 2). East - west traffic traverses the site at a number of points, in particular, Grosvenor Street/Cavendish Street and Burlington Street/Brunswick Street, the latter intersecting frequent University pedestrian movements. All these traffic routes represent considerable obstacles to the concept of the precinct.

Link road 17/7 is shortly to be built across the site immediately north of Grosvenor Square and to the south of College Area A. This road will be raised on columns some 20 ft. above present ground level across the site and there will be grade separated interchanges with Upper Brook Street and Cambridge Street. Also within the period up to 1971, it is proposed to widen and improve Upper Brook Street. In the longer term it is envisaged in the Manchester Development Plan that Cambridge Street will be improved and a further east - west route (the Inner Ring Road) is planned approximately on the line of Grafton Street, to the north of the Hospital site (fig. 3).

The overhead railway (Altrincham line) passes the northern end of the area to the south of the original College Building.

Apart from the existing University and College buildings to be retained and the buildings of the Regional College of Art and the John Dalton College of Technology the existing land use in the area is mainly housing, in two storey terraces, with local service industries and shops. Most of the shops occur along Oxford Road and Stretford Road but with the progressive clearance of the

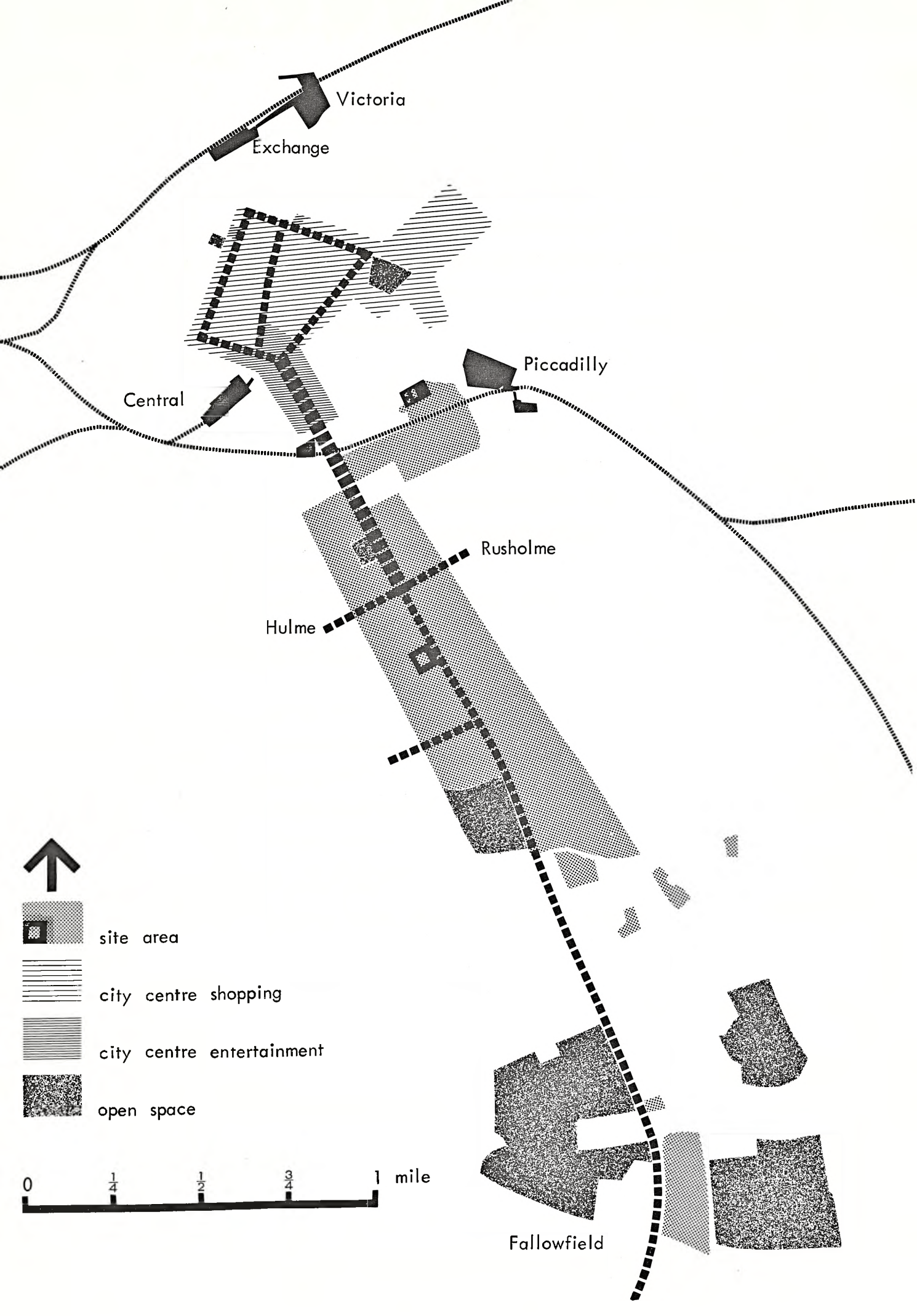
2. BUS FLOW DIAGRAM 8.30 - 9.30 a.m.



3. CITY'S CURRENT ROAD PROPOSALS

older housing, the shopping has declined apart from businesses which rely largely upon the University for their trade. Much of the property is in poor condition.

To the north of the Precinct lies the city centre with its main line and suburban railway stations, its regional shopping and entertainment centres. To the south is the residential and recreational hinterland providing most of the lodgings and sites for students' halls of residence. To the east and west major areas of urban housing at Rusholme and Hulme are in process of clearance and reconstruction by the City Corporation (fig. 4).



4. LINKS WITH CITY CENTRE AND RESIDENTIAL AREAS

4. THE PLANNING BRIEF

For the meeting of the Joint Committee, held in November, 1963, a paper was prepared by the Consultant setting out the general scope of the operation and this is included as Appendix "A" to this report. Detailed briefs of accommodation requirements had already been drawn up by the University and the College Authorities and by the City Education Officer and these have formed the basis of the present study. It has also been necessary to consider the effect of the Precinct development on the surrounding areas and the impact of other proposals in the City on the Precinct.

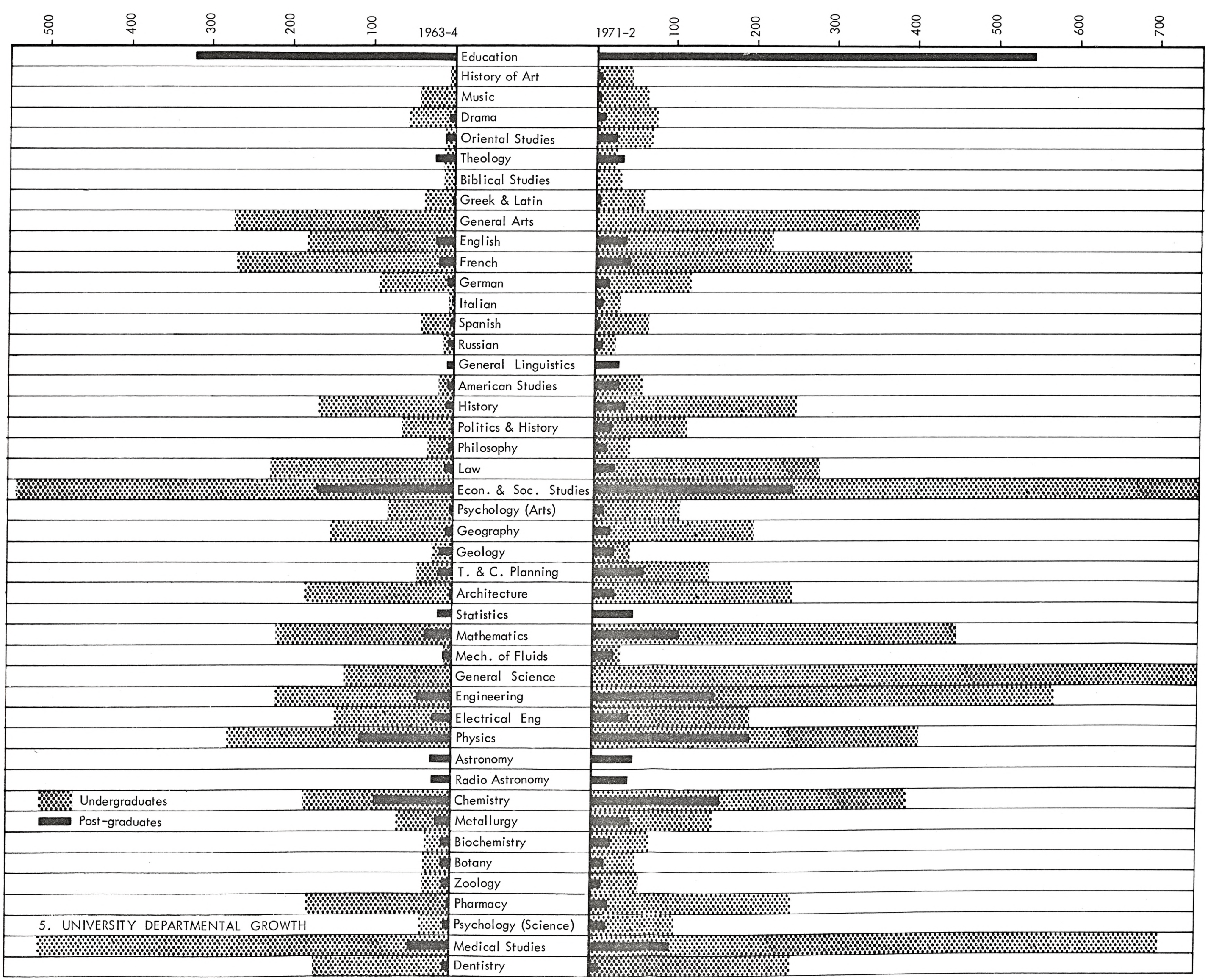
The brief has thus been a complex one, comprising a detailed set of requirements and at the same time being very general and wide ranging in its implications. Planning is a comprehensive activity and never more so than in the case of this vitally important example of urban renewal in a great city.

The following accommodation has to be provided on the site:-

(a) University

The teaching area of the University has been developed as a series of grouped but separate buildings, many of them specialist in character of accommodation. The number of students at the University (excluding the Faculty of Technology) is estimated to rise by 75% between 1963/64 and 1971/72 to a total of 10,500. The most dramatic increases are anticipated in the sciences and there is expected to be a greater percentage rise in post-graduate than in undergraduate student numbers (fig. 5). At the present time these figures are based on estimates made by heads of departments and, taken by themselves, could give a misleading idea of the eventual pattern of growth. Priorities are continually changing from year to year in response to various pressures, the type of space available, academic personalities, developments in research and changes in teaching methods. What appears to be quite certain is that the total student number will increase as indicated.

The pattern of study in the University is also constantly changing, not only in the relative importance numerically of the various departments but also in the way they associate to make up new courses of study. In planning for such an unpredictable organism one is involved in problems of flexibility



5. UNIVERSITY DEPARTMENTAL GROWTH

and growth which are of a particular nature if there is an over-riding desire for compactness. Additional space can only be added at the perimeter of such a group. Growth being outwards, future changes must be possible internally and the planning and structure of the building must be conceived with this in mind. On this basis a continuous building form will result in maximum flexibility.

This concept of continuity reflects the academic pattern which is emerging at the present time, one where departmental divisions are tending to be bridged and linked in new areas of research and teaching. Such tendencies may be marginal and slight at the present time but the building form must be able to accommodate such developments taking place in the future. Clearly in the teaching and study needs of all the disciplines there are certain common factors which could be served by the same or similar spaces. The need to gather students together in groups of various sizes for purposes of lecturing and discussion is relatively an unchanging requirement of University teaching, even allowing for future developments in television and recorded lecture techniques. Similarly the study bedroom unit conveniently placed in the University complex will always be necessary accommodation. In this sense certain kinds of space provision can be said to have a lower rate of obsolescence than others.

Sites are required in the near future for buildings for the Mathematics Department and the Medical School.

(b) College of Science and Technology

There are 2,280 full time students at the College in 1963/64. This number is estimated to rise to about 3,400 by 1972. A vigorous building programme is under way at the present time which will use up all the land the College has available on Area A (bounded by Sackville Street, the Railway, London Road and Link Road 17/7).

The building programme beyond 1967 will take place on Area B across Sackville Street.

The nature of further academic expansion is under active consideration at the present time and the outcome of these discussions will determine the

kind of development required in Area B.

In addition, the College have an area of 16 acres on Oxford Road and are planning to build residential and ancillary accommodation in a continuing programme starting in 1966.

The major problems facing the College are a future shortage of land for academic development beyond 1972 and the unfortunate separation of their academic area from the site of the student quarter and the rest of the Precinct by the link road 17/7. At the present time the only direct connection possible is a long footpath diagonally under Road 17/7 at its junction with Upper Brook Street.

(c) Business School

Arising out of the Franks and Normanbrook reports, Manchester has been selected as the location for one of two national business schools and it is felt that this should be sited somewhere on the Education Precinct as both the University and the College have hitherto provided courses of business management in their curricula. There would be teaching accommodation for an annual course for 200 post-graduates and for courses for 100 post-experience students, with residential accommodation for 150.

(d) Further Educational Projects

In the area west of Oxford Road and north of Booth Street the City of Manchester Education Committee has embarked on a substantial programme of Further Education buildings. The Regional College of Art on Grosvenor Square is being extended and the new John Dalton College of Technology is to open in the autumn of 1964.

Other colleges which have been proposed for the area are a college of Adult Education and a Teachers Training College.

The Lancashire Education authority is promoting in conjunction with the authorities of Cheshire, Manchester and Salford a new Northern College of Music in which will be merged the existing Royal Manchester College of Music and the Northern School of Music.

Hostel accommodation for 200 students is planned adjacent to the John Dalton College and space for another 400-500 students is required.

In addition it is planned to provide in the area a students union building, a child guidance clinic, a teachers centre and office headquarters for the Union of Lancashire and Cheshire Institutes.

(e) British Broadcasting Corporation

The B.B.C. has been allocated a site immediately north of the link road 17/7 to build radio and television studios and offices. At the present time this is programmed to start in 1967.

(f) The United Manchester Hospitals

The hospital group formed in 1948 consists of

i. The Manchester Royal Infirmary, an undergraduate teaching hospital with 823 beds and outpatients and casualty departments with some 224,000 attendances annually. This is situated on Oxford Road, south of Nelson Street.

ii. Barnes Hospital, a convalescent hospital for 90 patients at Cheadle.

iii. St. Mary's Hospital, with a gynaecology department with 149 beds near Whitworth Park and a maternity unit with 105 beds in Whitworth Street. The latter is to be replaced by a new unit near the former with 175 beds. Construction is to start in 1965.

iv. Manchester Royal Eye Hospital, a teaching hospital with 209 beds and an outpatients department with 107,000 attendances annually. This is situated near to the Manchester Royal Infirmary.

v. Dental Hospital, with 100 chairs and accommodation for about 160 students. Part of the building in Bridgeford Street is occupied by the Schools of Architecture and Town Planning.

vi. Manchester Foot Hospital. This is for outpatients only with an attendance of 55,000 persons annually. There are 42 chairs in a building in Anson Road, Victoria Park.

It is planned to reconstruct the entire group ultimately on what is known as the 'island site' bounded by Oxford Road, Grafton Street, Upper Brook Street and Rusholme Place/Oxford Place and Messrs. Fry, Drew and Partners have been appointed as Consultant Architects. It is obviously necessary to co-ordinate this work with the planning and construction of

the University Medical School. However, the City's current road plan envisages the inner ring road being built between this island site and the site reserved for the Medical School at some unspecified date.

The reconstructed hospital would have between 1,400 and 1,800 beds. At the present time the hospital is overcrowded and development is hindered by the presence of a number of houses within the area allocated in the Town Map for Hospital use.

(g) Student Housing

Apart from the hostels to be provided by the Manchester Education Committee, there are also the requirements of the University and College, the accommodation being available to students of either.

The main University residential provision for up to 4,000 students has been planned about 2 miles south in a dormitory and commuting relationship with the University and College area.

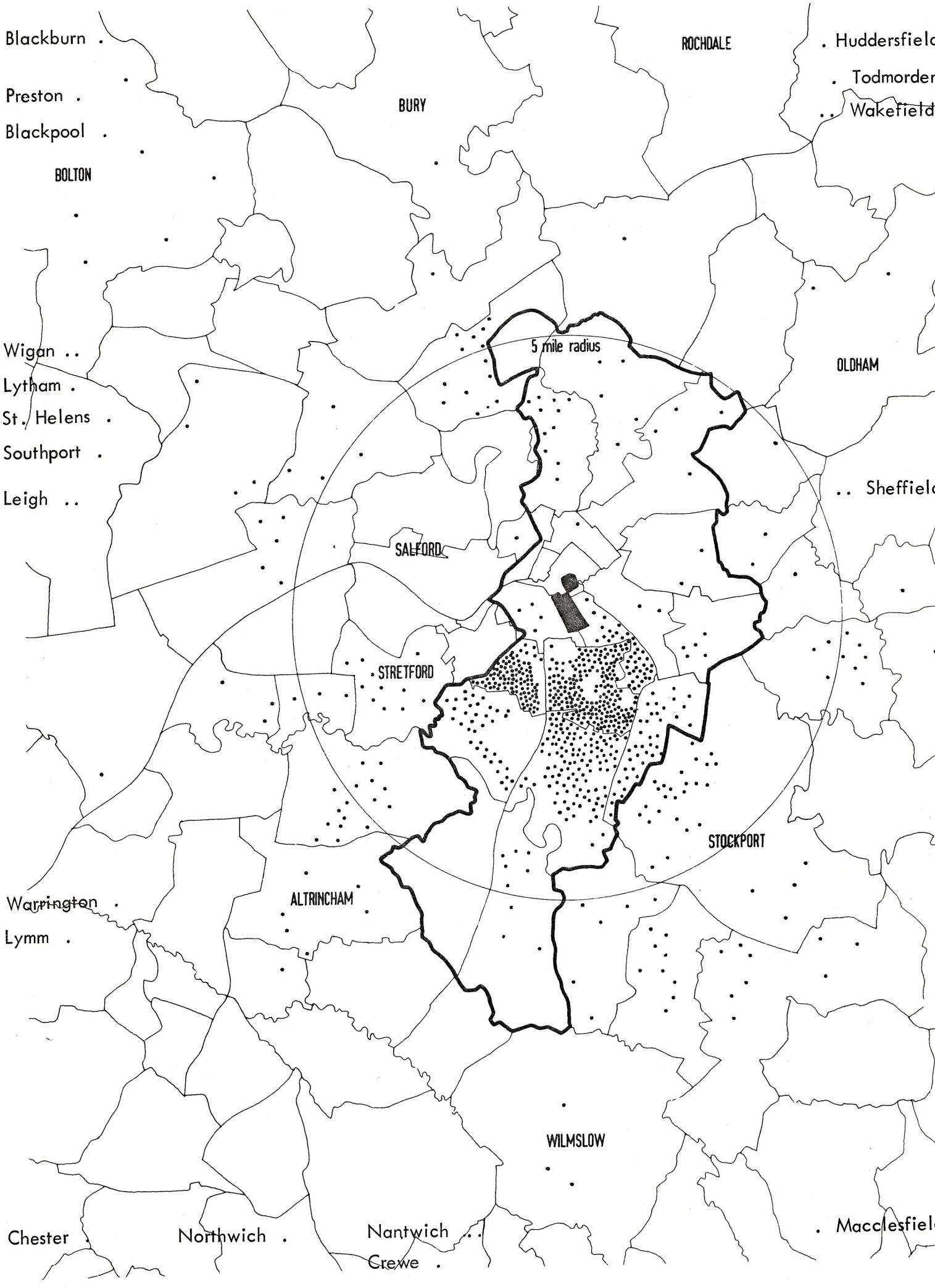
The lack of residential accommodation within the Precinct and the disrupting effect of busy through traffic routes have inhibited the full development of a vital University life, particularly in the evenings and weekends; both the University and College recognise that at least 50% of the student body should be in residence.

The present position is:

1963/64	Number of students	8,312
	Number in residence	1,948 = 23%
	Number living at home	1,420 = 17%
	Number in lodgings	4,944 = 60%

The lodgings position is difficult in that, because of decay and demolition there is an acute shortage of suitable accommodation near at hand. Only some 16% of lodgings are within a mile of the University and while the bulk of the remainder lie 2 or 3 miles further south, the fact that 750 students are in lodgings outside the city boundary shows that reasonable distance limits have probably been reached in the search for accommodation (fig. 6).

In this connection it may be worth while for the City authorities to consider the incorporation of additional accommodation in some of the



6. STUDENTS LIVING AT HOME AND IN LODGINGS. 10% SAMPLE SURVEY 1962-3

new houses in the Rusholme and Hulme areas to provide lodgings.

(h) Commercial Uses

Shops, banks, restaurants, cafes and public houses will be required to serve the needs of the Precinct population and a study is being made, the results of which will be included in the Final Report. It is suggested that some of this accommodation should also serve the housing areas of Rusholme and Hulme thus contributing to the commercial viability of the area as well as the integration of town and gown. Groups of professional and similar offices could also be incorporated.

(i) Churches

Sites are required for the University Church, the Chaplaincy, and for the rebuilding of the Roman Catholic Church of St. Augustine.

(j) Car Parking

The problem of car parking has to be considered in terms of the policy decisions to be made by the various authorities in the use of cars in the Precinct, the accommodation required as a result of these decisions, the physical difficulties of movement to and from busy roads and the visual discordance of masses of vehicles. A recent survey at the College showed that one in four students were issued with a sticker authorising them to use a College car park and almost every member of the academic staff was also issued with one. Roughly half of those issued were being used.

Considerable study will be required on the magnitude of the problem and will be dealt with in the Final Report. At the moment it would appear that the long term demand could well be of the order of at least 10,000 car spaces and might, indeed, be very much greater unless very drastic restrictions are to be imposed by the authorities.

5. COMMUNICATIONS

Although the problem of the communications pattern for pedestrians and vehicles can only be dealt with as part of the overall planning process, it is obviously of such vital importance to the future development of the Precinct as to merit special consideration in this report before proceeding to a more general account of the planning proposals. The subject falls under three main headings: (a) vehicular traffic generated outside the Precinct

(b) vehicular traffic generated inside the Precinct, including car parking

(c) pedestrian movement

(a) Traffic generated outside the Precinct

The first, and fundamental, question to be considered is the large amount of through traffic using the roads within the Precinct area; indeed to call it a Precinct is a contradiction in terms at the present time. The success of the concept of the Education Precinct will depend to a large degree on the extent to which the element of through traffic can be removed and this in turn can only be achieved by the road proposals in the City as a whole. The new transportation survey which has recently been commissioned for the S.E.L.N.E.C. area will undoubtedly lead to reconsideration of the proposals included in the operative Manchester Development Plan but in the meantime some assumptions must be made to allow planning to proceed in the Precinct area. This cannot be delayed further because of the urgent building programme.

It cannot be stressed too clearly, therefore, that the planning proposals in this report are based on the assumption that steps will be taken to remove all unnecessary through traffic from the Precinct so that it can become an 'environmental area' as defined in "Traffic in Towns". It is appreciated that this can only be achieved over a period of time but nevertheless it is suggested that it must be the ultimate aim of all concerned with the future of the City and the Education Precinct. Failing this, no pretence should be made that the area could ever be more than a collection of buildings fronting on to traffic roads with little cohesion or overall environmental quality. A rare

opportunity would have been missed.

Although the new link road 17/7 will produce problems within the Precinct, particularly in terms of pedestrian movement between the College Area A and the proposed Student Quarter to the south, the construction of this major traffic route will be important in providing for east - west flows across the site. The proposed widening of Upper Brook Street and Cambridge Street will improve north - south flows and these roads will be connected to Road 17/7. It is also intended to connect Sackville Street to the 17/7 - Upper Brook Street interchange; it is appreciated that this is considered to be necessary at the present time to permit complementary one-way traffic flows on Upper Brook Street and Sackville Street but this proposal should be reconsidered since it will have a most detrimental effect on the College Area A in introducing through traffic into what should be a quiet area and thus making it one in which there is bound to be conflict between pedestrians and vehicles. Even though this proposal may be considered to be short-term, it is none the less regrettable.

The other debatable road proposal in the Manchester Development Plan affecting the Precinct is the inner ring road which will cross the site on the line of Grafton Street and in addition to bringing noise into the area will form an obstacle between the Hospital site and the proposed University Medical School site. If this road is to materialise it should be placed in cutting where it crosses the Precinct and methods should be taken to reduce noise interference; on the other hand it is recommended that the need for and line of this route should be reconsidered.

The only other east - west route which might be considered is one to take service traffic between the Rusholme and Hulme housing areas along the line of Booth Street; such a road could also bring public transport vehicles into the area from these directions. This proposal will be investigated further as planning studies develop.

Finally in terms of through traffic, the future and the function of Oxford Road has to be considered. This in turn raises the question of the kinds and amounts of traffic to be generated by the Precinct development.

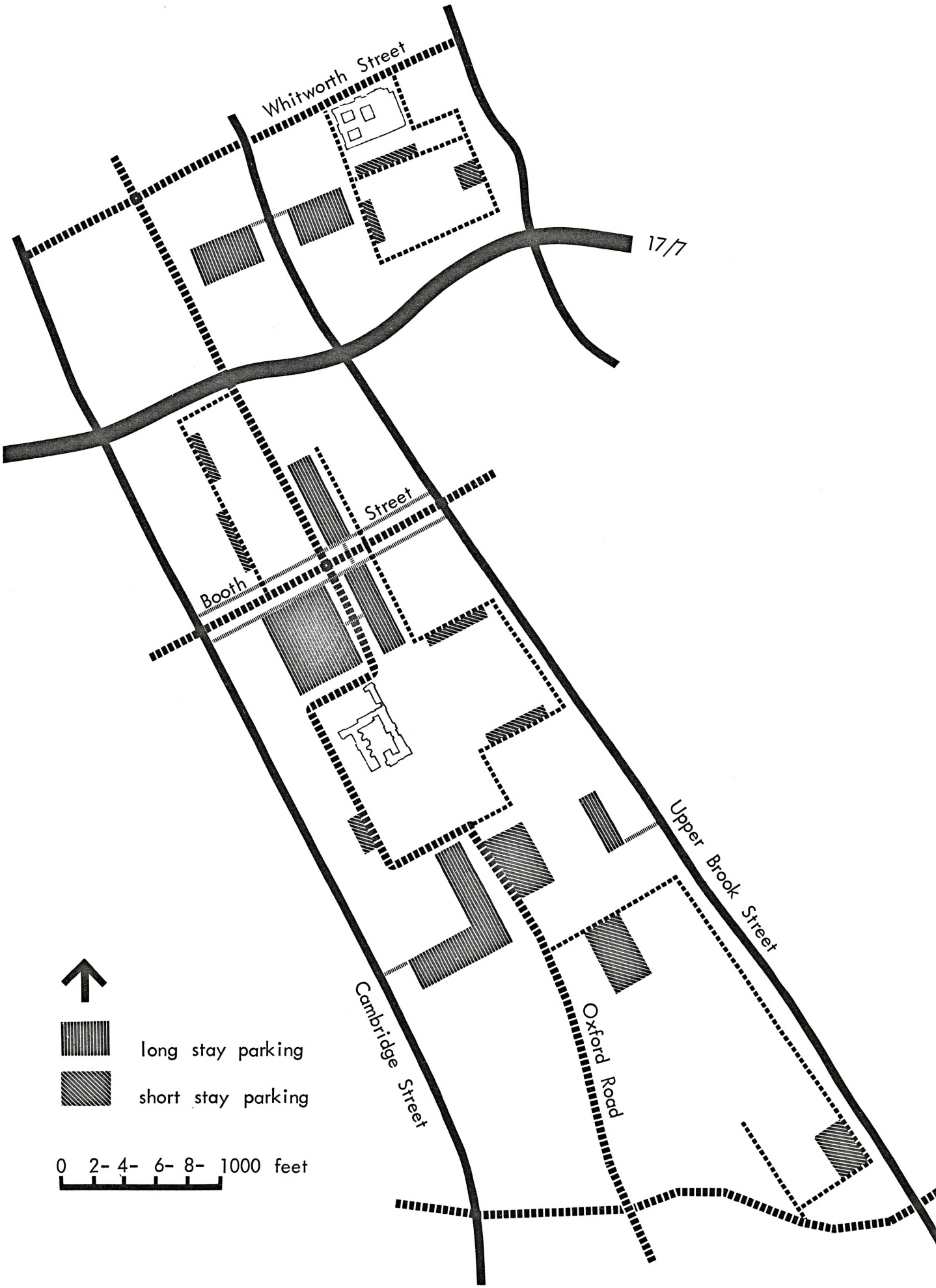
(b) Traffic generated inside the Precinct

The greatest number of vehicles will be cars belonging to students, staff and others working in the Precinct area. Their need is to get to the area quickly and, with as little interruption as possible, to arrive in a conveniently placed car park from which they can reach their place of work under cover. It would be desirable, therefore, that these vehicles should use Cambridge Street and Upper Brook Street, both of which will be improved as radials in the city's secondary road system. Special provision is made in the plan for such cars in multi-level and underground parks with access only off these perimeter roads.

Visitors, on the other hand, arriving by 'bus, car or taxi wish to arrive as near as possible to the front door of a department and, if they travel by car, wish to be able to find a car park easily at that point. The plan therefore provides for a substantial number of smaller surface car parks distributed about the site convenient for the building entrances and reached from the service road network (fig. 7).

The new land use in the area will require such a service road network easily understood by new-comers to the Precinct and arranged for convenience of internal movement about the site. At the same time it is now an accepted principle that there should be the maximum separation of pedestrians and vehicles, particularly on the main routes. Having regard to existing development and the long, narrow shape of the site it is clear that the main pedestrian street should be sited along the middle of the Precinct, giving a coherence to the whole area which is lacking at present.

In principle the service road network, with loop roads or culs-de-sac, can be planned in two ways. It can be based on a central collector road (as Oxford Road) or in two peripheral collector roads. Although the latter proposal is an attractive one in that it could leave the centre of the Precinct clear of all traffic, there are also considerable objections. Access to Upper Brook Street and Cambridge Street will be restricted and, therefore, it would be necessary to construct the peripheral roads within the site and the presence of existing buildings makes this almost impossible. Further, such a plan would



7. MAJOR CAR PARKING AND ACCESS

severely hamper local movement within the site and throw even more traffic on to the City roads.

After serious consideration it is, therefore, proposed that Oxford Road should be used as a main spine with feeder loops or culs-de-sac off it serving the loading and unloading points at each building. On either side of Owens it will be possible, as described later, to organise upper level pedestrian walks but it is proposed, as soon as the older buildings at the rear of Owens can be demolished, that the length between Leamington Street and Bridgeford Street, in front of Owens, should be closed and the traffic diverted along these roads and a new length of road between Owens and the existing Arts Library.

Under this scheme Oxford Road would be used only be public transport vehicles and by vehicles requiring access to the Precinct. The precise methods of achieving this restriction in through traffic have still to be investigated but the most effective way may well be to provide more attractive alternative roads into the city from the south and to make Oxford Road more devious in its route.

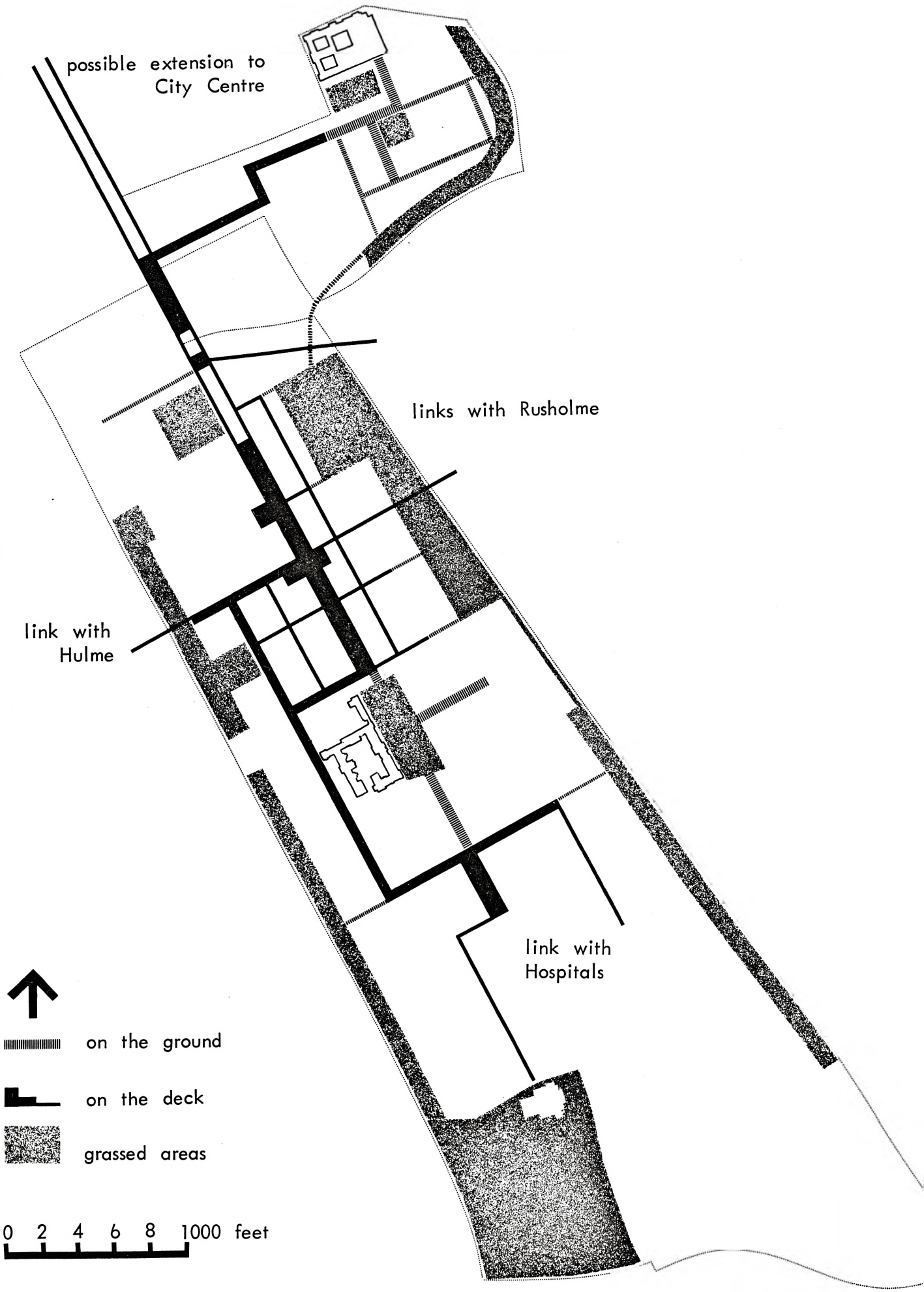
Consideration has been given to the possibility of sinking Oxford Road but there are considerable difficulties with existing services and even if these are overcome it could not fulfil its main function as a service collector road.

The service road network would be suitable for cycling which, on this flat site, could well become a popular method of travelling about the Precinct.

(c) Pedestrian Movement

The main north - south pedestrian walks already referred to are proposed to be above the level of Oxford Road so that pedestrian-vehicle separation is obtained. In the older parts of the site where a two level design is not feasible the movement paths of vehicles are separated as far as possible from those of pedestrians. When new buildings are erected along the proposed diversion of Oxford Road behind Owens they can be designed to bridge the new roads and connect with what would then be a pedestrian area at ground level, including most of the present University area (fig. 8).

The upper level pedestrian walks give access to the new buildings proposed



8. MAIN PEDESTRIAN ROUTES

along the spine of the Precinct; these buildings can be designed with cantilevered upper floors or canopies to give weather protection. Being free from the pace of motorised traffic the pedestrian street can be designed to exploit the capacity of the pedestrian to make abrupt changes of direction and level by passing under and through the building forms with all the excitement of rapid contrast of light and space experience which this can bring.

These proposals do not rule out the use of a travalator system as put forward in the report prepared by Professor Kantorowich but further consideration of this will be deferred pending a study of pedestrian movement within the Precinct. The results will be included in the Final Report.

Car parking space is provided in two ways as previously described; in multi-level parks beneath academic and residential buildings giving under cover access to the buildings and pedestrian walks above, and in a number of small surface car parks sited close to individual buildings.

Further comments on these matters are included in the Preliminary Report upon the Road and Traffic Aspects of the Proposed Redevelopment by Colin Buchanan and Partners (Appendix "B").

6. THE PLAN

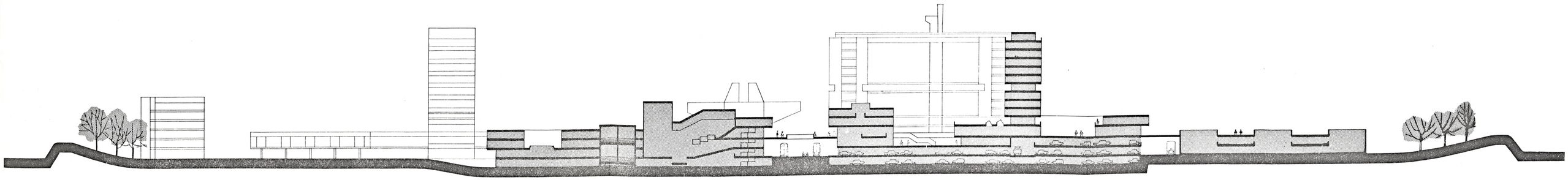
Preliminary estimates show the ultimate working population on the site to be 38,000 people made up as follows:-

	Students	Academic Staff	Other Staff	Total
University	15,000	2,500	5,000	22,500
College	5,000	835	1,670	7,505
City	2,500	250	250	3,000
Hospitals	1,390	-	3,335	4,725
Shops, Offices, etc.	-	-	270	270
	23,890	3,585	10,525	38,000

It would be difficult to imagine a livelier community than this and to have it located in this ideal way on a strip of land with one end touching the city centre creates an opportunity to make here a modern urban university of a unique kind, compact in form, complex in structure and comprehensive in range.

(a) Residential Accommodation

There can be no doubt that the greatest single step which could be taken to invigorate the life of the University and the College would be to implement as soon as possible the aim to provide 50% residence by building this accommodation in the heart of the Education Precinct. The College has already initiated such a move in their idea of a student quarter. The main concept in the plan is of the whole site becoming a student quarter with residential accommodation integrated with study, teaching and recreational spaces so that the very rich texture of experience which a University ought to be can be known over the whole Precinct area. A cross section through the site reveals a cross section of all the ingredients of undergraduate life - the extremes of the busy street and the quiet room, the noisy discussion in a bar and the quiet conversation strolling on the lawn, the memorable lecture and periods of laboratory work all possible within a few yards of each other (fig. 9).



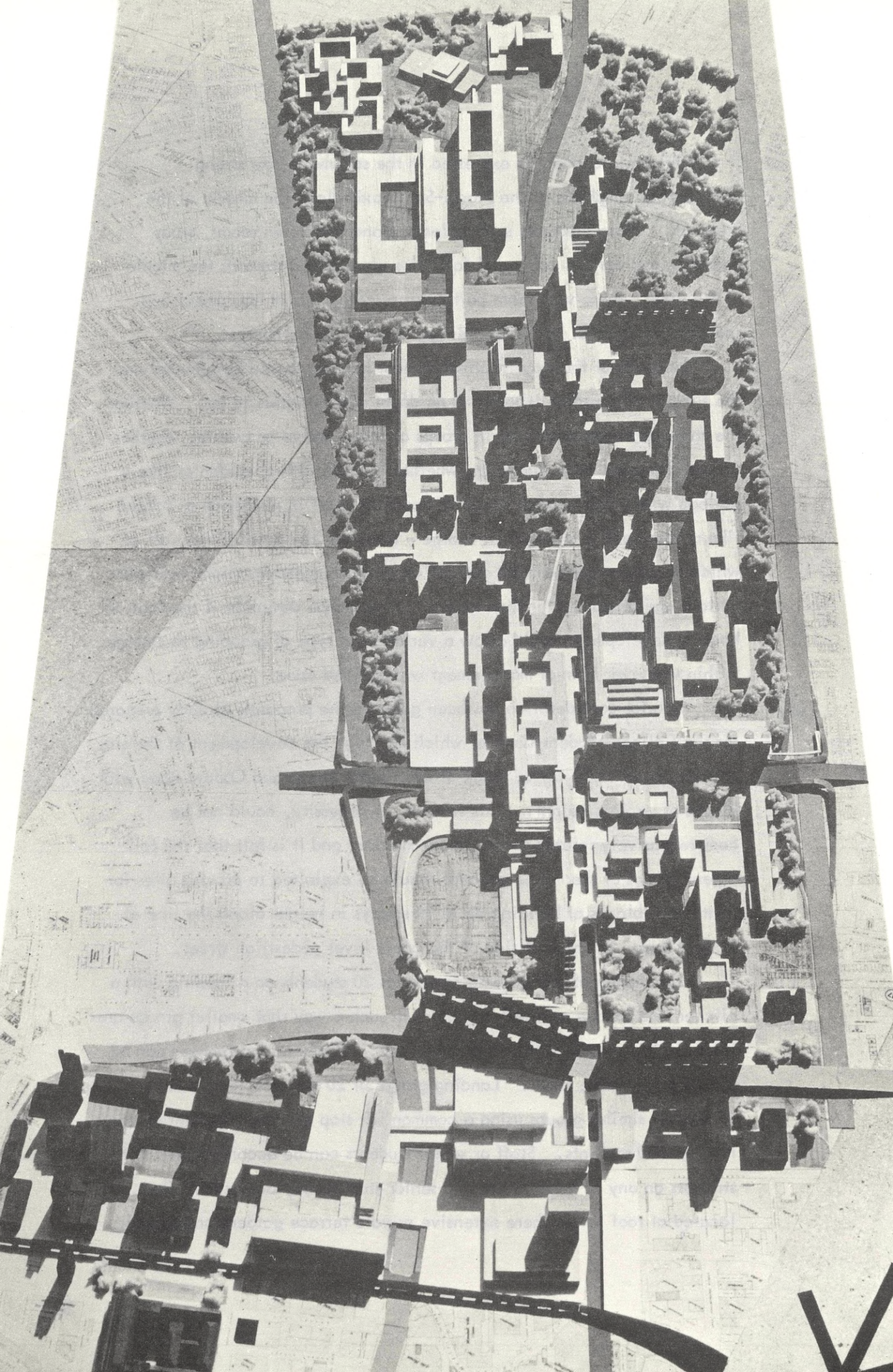
9. EAST-WEST CROSS SECTION LOOKING NORTH

This basic concept is expressed in the scheme by the strong architectural emphasis of the North-South axis along the middle of the Precinct. Those elements such as lecture and discussion rooms, study bedrooms and various communal facilities are grouped towards the middle of the area; those with more particular requirements of equipment and spaces of an unusual nature are placed towards the perimeter.

Ideas about the way in which student housing should be grouped are the subject of constant debate and no doubt will continue to be. Whether the study bedrooms should be in groups of four, twelve or twenty, whether around staircases or on landings, whether in halls with a warden or like a college with a fair number of senior academic staff in residence or indeed like a hotel with a manager in charge - these are the possibilities, all of which could perhaps be tried out and certain arrangements might well suit certain age groups better than others. It would be desirable if the form of housing development could allow a variation in type of grouping to emerge within whatever form of management was decided upon.

Careful consideration has been given to the proposals already prepared for the College Student Quarter which envisage the development of the site between Road 17/7, Upper Brook Street, Booth Street and Oxford Road with blocks of varying height. This scheme, of necessity, could not be comprehensively related to the whole Precinct and it is felt that the full potentialities of the spine concept should be exploited to provide sites for continuous blocks of building up to 11 storeys in height along the line of Oxford Road, on the east side of the upper level pedestrian street.

The design of this housing associates 20 students on a landing with a kitchen and lounge as a rallying point in such a way that smaller groups are likely to form easily within this larger one. Kitchens and lounges can be paired on the same level. Landing groups of 20 are associated via staircases with other similar groups using a common lift stop and the lift point serves a total of 320 students. Staff or senior students can be accommodated with students on any of these scales and senior staff rooms, or wardens' flats, are located at roof level where extensive private terrace gardens are possible.

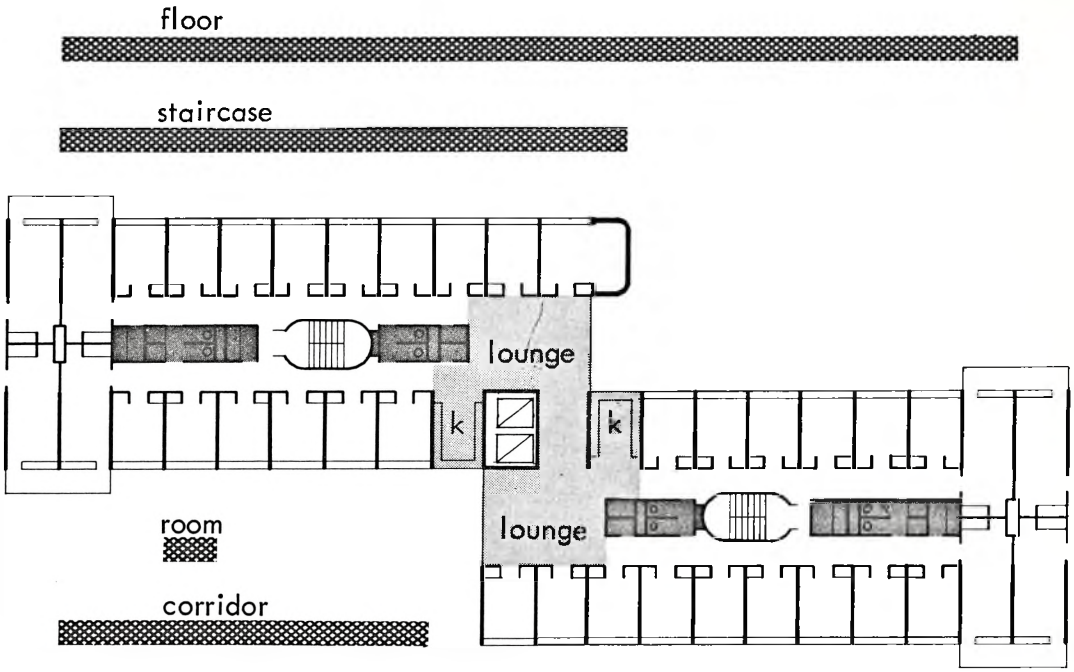


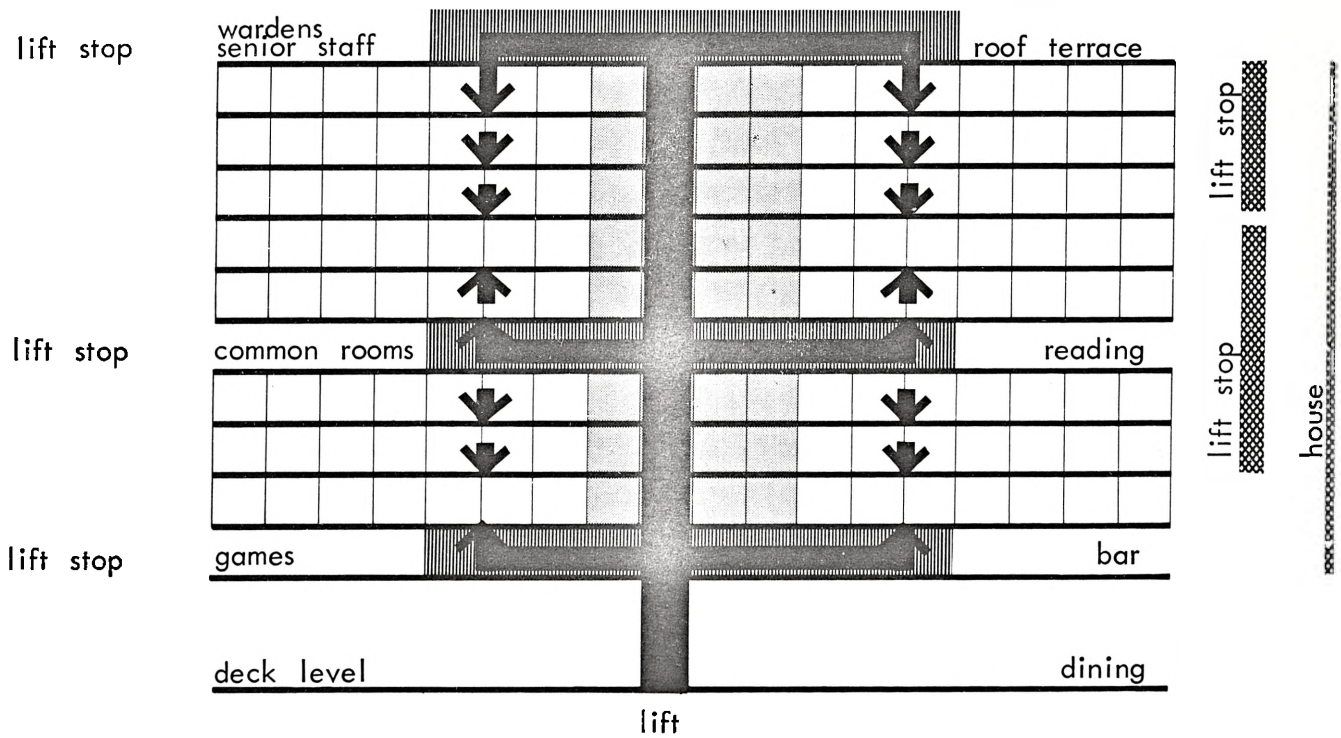
At lift stops common rooms and recreation rooms or reading rooms can be included and refectories are at the pedestrian deck level (figs. 10 and 11). The student's bedroom is also his study and workspace. In certain cases it could perhaps be shared with another non-residential student for study purposes and thereby relieve the pressure on study space elsewhere. All students could thus identify themselves with a particular social unit on the Precinct.

The housing has been conceived in a continuous form to allow the kind of grouping to be decided or changed without affecting the architectural impact. The detailed variation of internal arrangement could well be expressed on the outside of the building and this would enliven the form considerably.

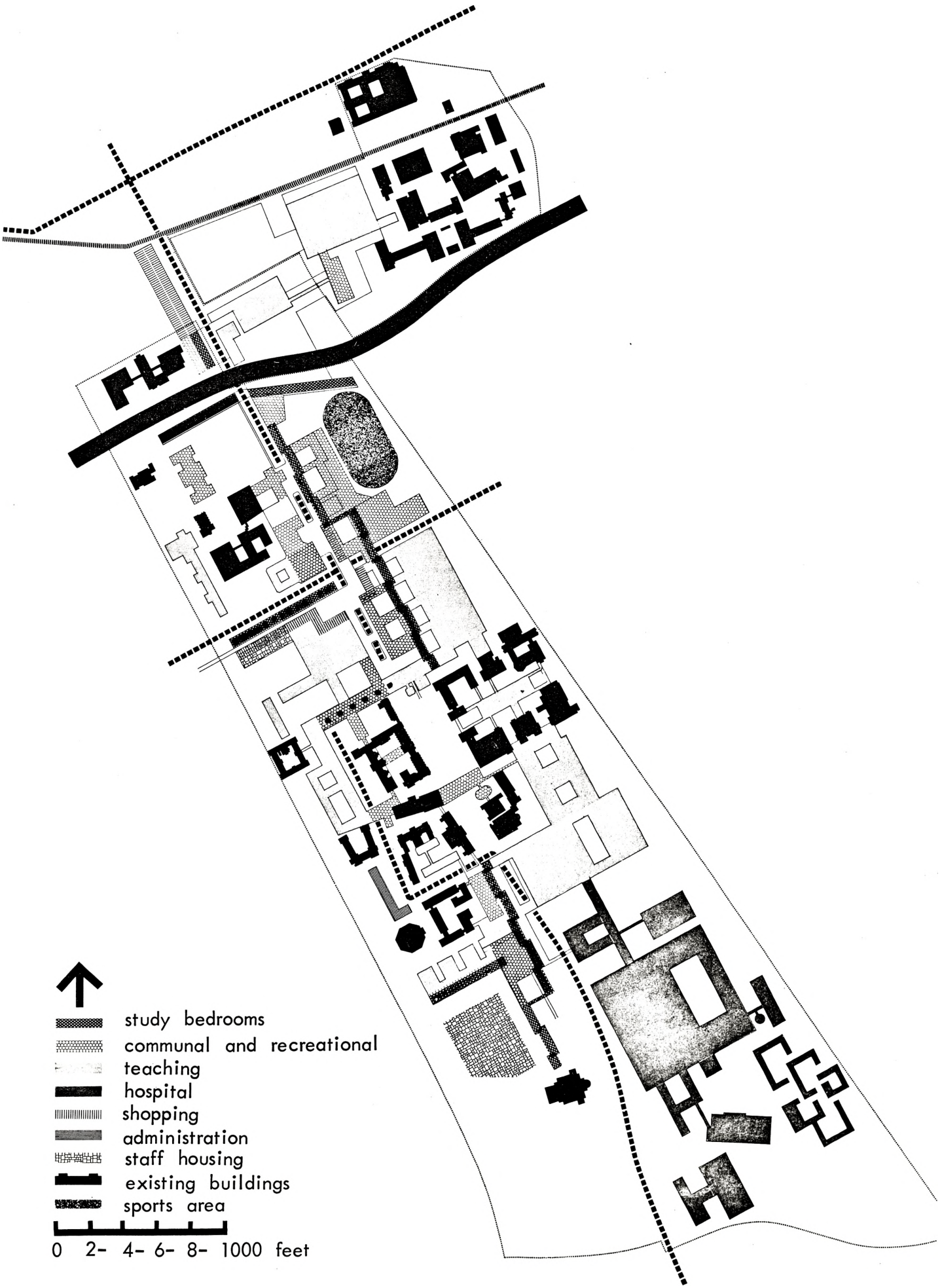
There are, of course, strong economic arguments for continuity - full utilisation of site, frontage, lift and service installations, economy of perimeter wall, with resultant reductions of heat loss and initial cost. There are sound social reasons too - greater flexibility of the use of the buildings, maximum potential points of association and contact, livelier conditions at the deck level.

There are in addition to these, important architectural considerations of the right scale of structure in relation to its extent which call for a single bold statement here to pull together the very diffuse elements of this extensive programme. There is also the very broad scale of the Precinct as a whole, its relationship with the city and a need to state clearly the basic form and organisation of the area. At the deck level the pedestrian street needs to be defined in a smaller, more detailed way. The buildings one would be passing close to here would be two or three storeys in height and spaced quite close together in some places, opening out in others to give shape to the street very much in the way that Trinity Street and St. John's Street in Cambridge are formed. Beyond the street the smallest scale of all would be the individual quadrangle or courtyard which would be surrounded by common rooms, dining rooms, staff and seminar rooms associated with a particular part of the housing terrace. Courts would lead one from the other, very much on the Cambridge

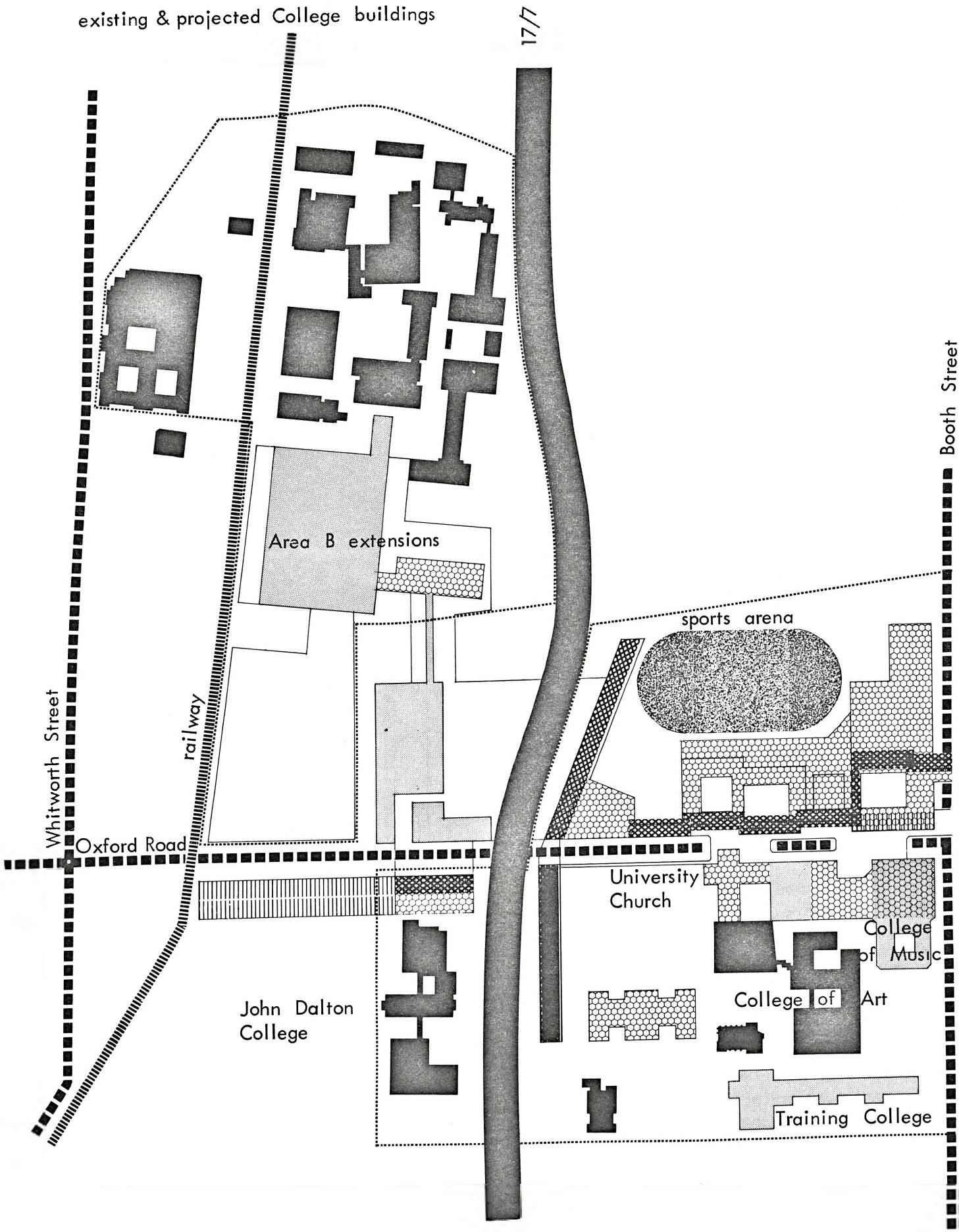




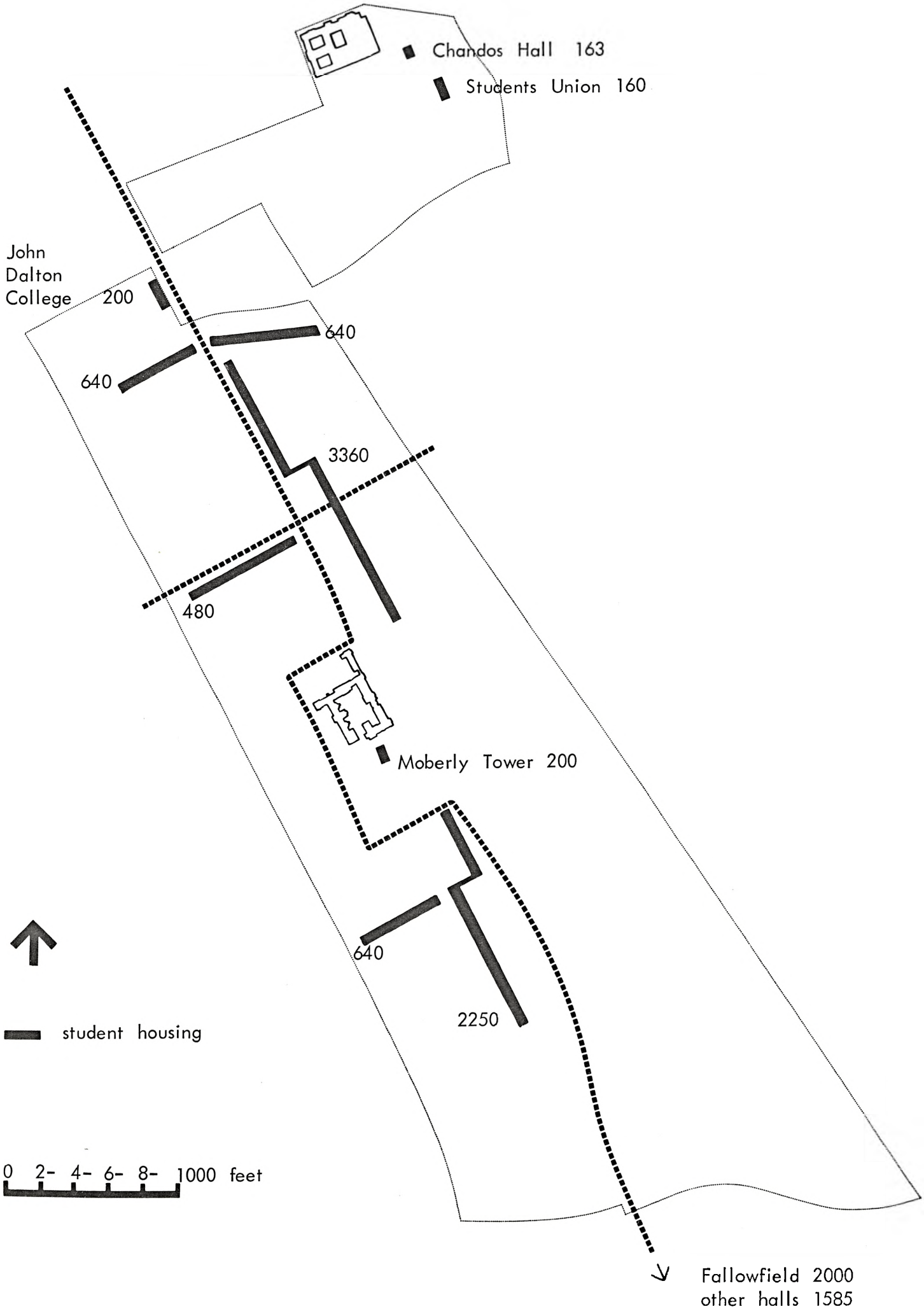
10. GROUPING OF STUDY BEDROOMS



12. PRECINCT PLAN



13. ENLARGEMENT OF COLLEGE & CITY AREA OF PLAN



11. LAYOUT OF STUDENT HOUSING

pattern and in this way a high degree of variation and differentiation of local environment could result (fig. 12).

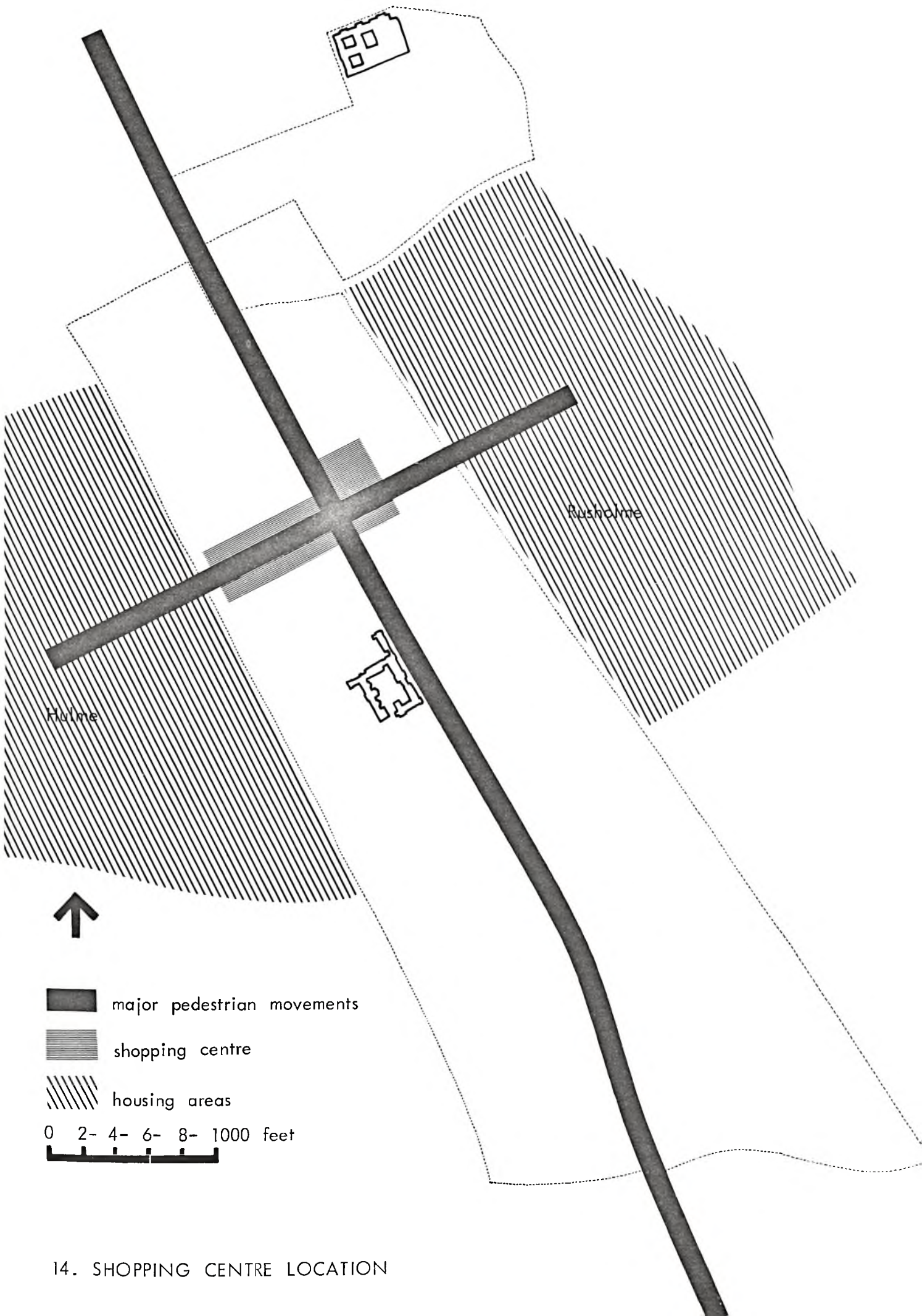
On the student quarter site, it is suggested that three main refectory centres are located at the upper level along Oxford Road. That at the south would be built together with the first 640 study bedroom units in the quadrangle in the south west corner. On the deck frontage would be shops with accommodation for the Student Health Service and for the headquarters of the Union of Lancashire and Cheshire Institutes above. These should be accommodated as soon as possible. There are likely to be several organisations and bodies such as these requiring space within the Precinct who could well be accommodated economically in this way as part of a larger contract. They would be in a central but quiet location with convenient car parking close by. 1,500 car places can be provided in this design for the student quarter site, with a rear service road, loading bays for kitchens and shops and a central boiler house to serve the whole area (fig. 13).

Athletics

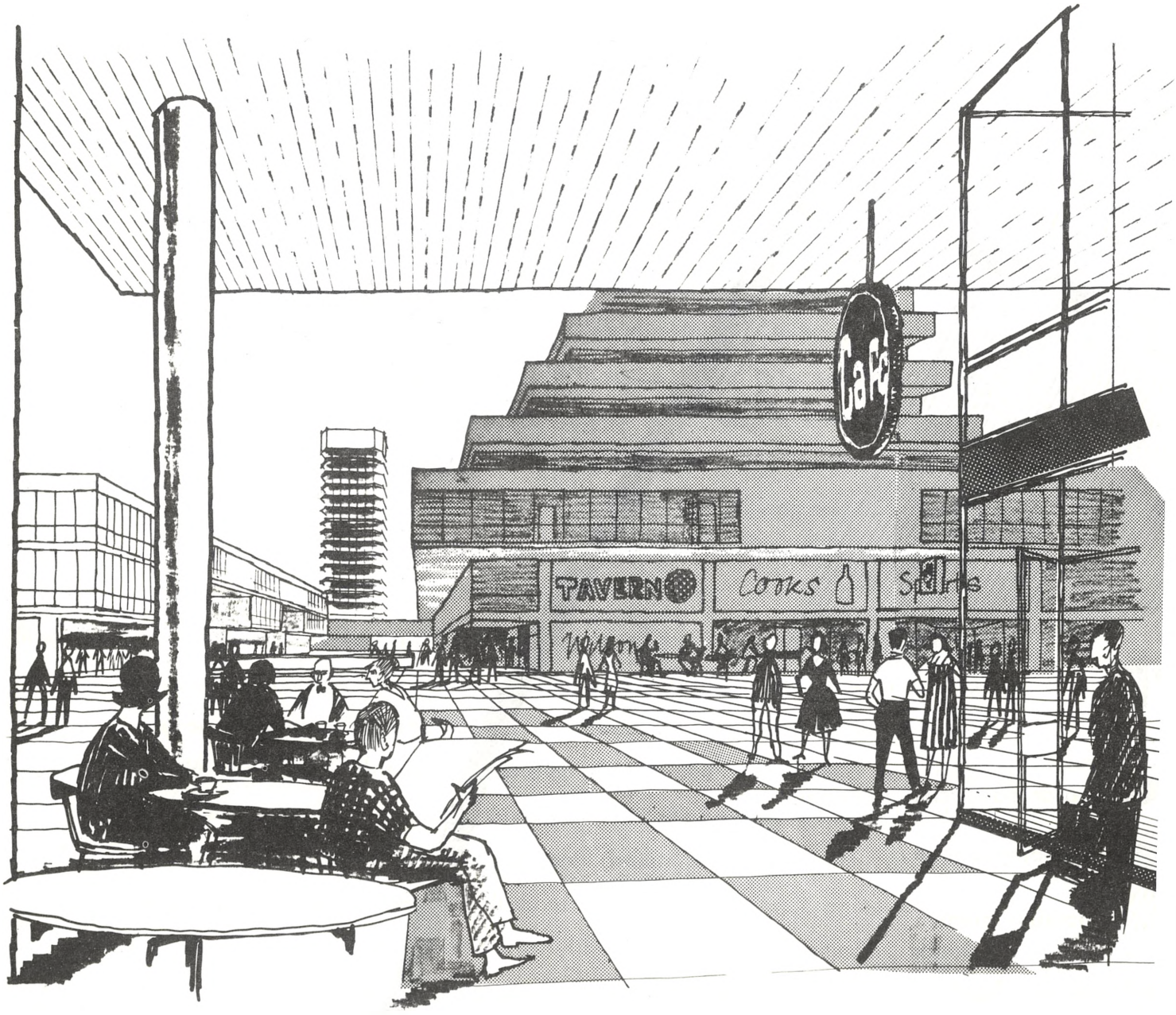
This kind of urban concentration requires the foil of open space and on the student quarter site it is possible by building in this way to have a competition athletics ground, ideally orientated with space around it for spectators either on the grass mound skirting it to the east, or on terraced seating over low buildings to the west and south. Also on the plan is a games centre, large enough for an Olympic size swimming pool, separate diving and free swimming pools, a group of gymnasia, squash and fives courts, with showers and changing rooms.

Shops

One of the keys to the rapid progress of the College's housing programme and many other developments in the Precinct will be the provision of alternative accommodation within the scheme for those retail businesses wishing to remain in the area. A high priority should be given to the building of a new shopping centre to serve the surrounding area as well as the Education Precinct and this is shown sited immediately south of Booth Street West (fig. 14 and 15). Here a covered arcade is planned with shops flanking both sides, opening out into a shopping square at the intersection with the main spine pavement. The shops have storage space below and a service road at ground level. Housing for



14. SHOPPING CENTRE LOCATION



15 VIEW SOUTH FROM SHOPPING SQUARE ALONG PEDESTRIAN DECK

single students, married students or staff with families is shown above the shopping arcade.

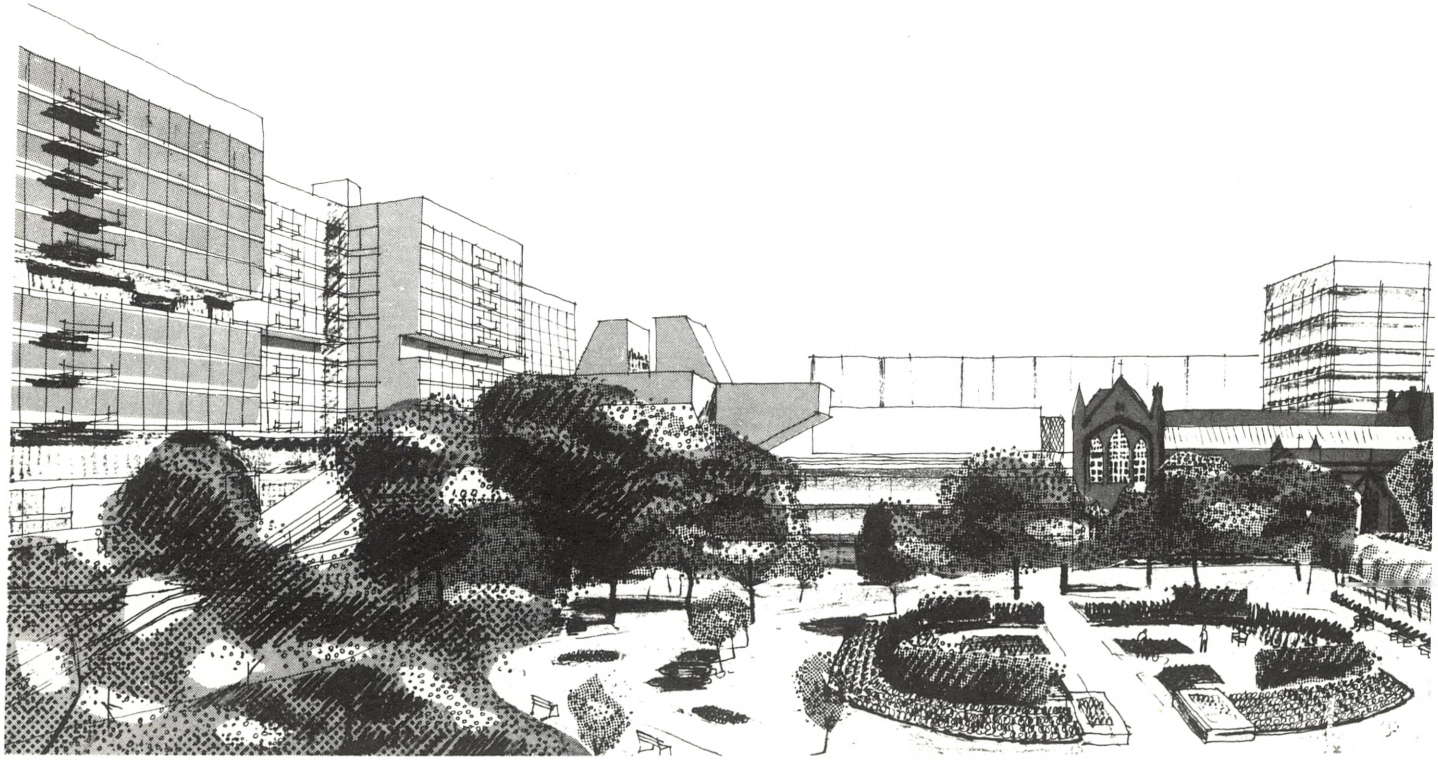
Grosvenor Square

Grosvenor Square is one of the few established gardens near the city centre and is included in the plan as the site for major renewal effort. The building of Road 17/7 has necessitated the purchase of land up to Loxford Street on the north side of the square and a substantial strip of this land will remain when the road construction is completed. It is a splendid site with an open aspect over the square to the south. It will be possible to build here a block of south-facing apartments either for students or for families with sets of consulting rooms or other small suites of offices at the lower levels and car parking on the ground and under road 17/7. This block, in conjunction with a similar block on the east side of Oxford Road, would screen the overhead traffic road 17/7 from the square and indeed from the whole Precinct to the south, and at the same time provide development in scale with the elevated motorway and taking account in its design of the problems of noise.

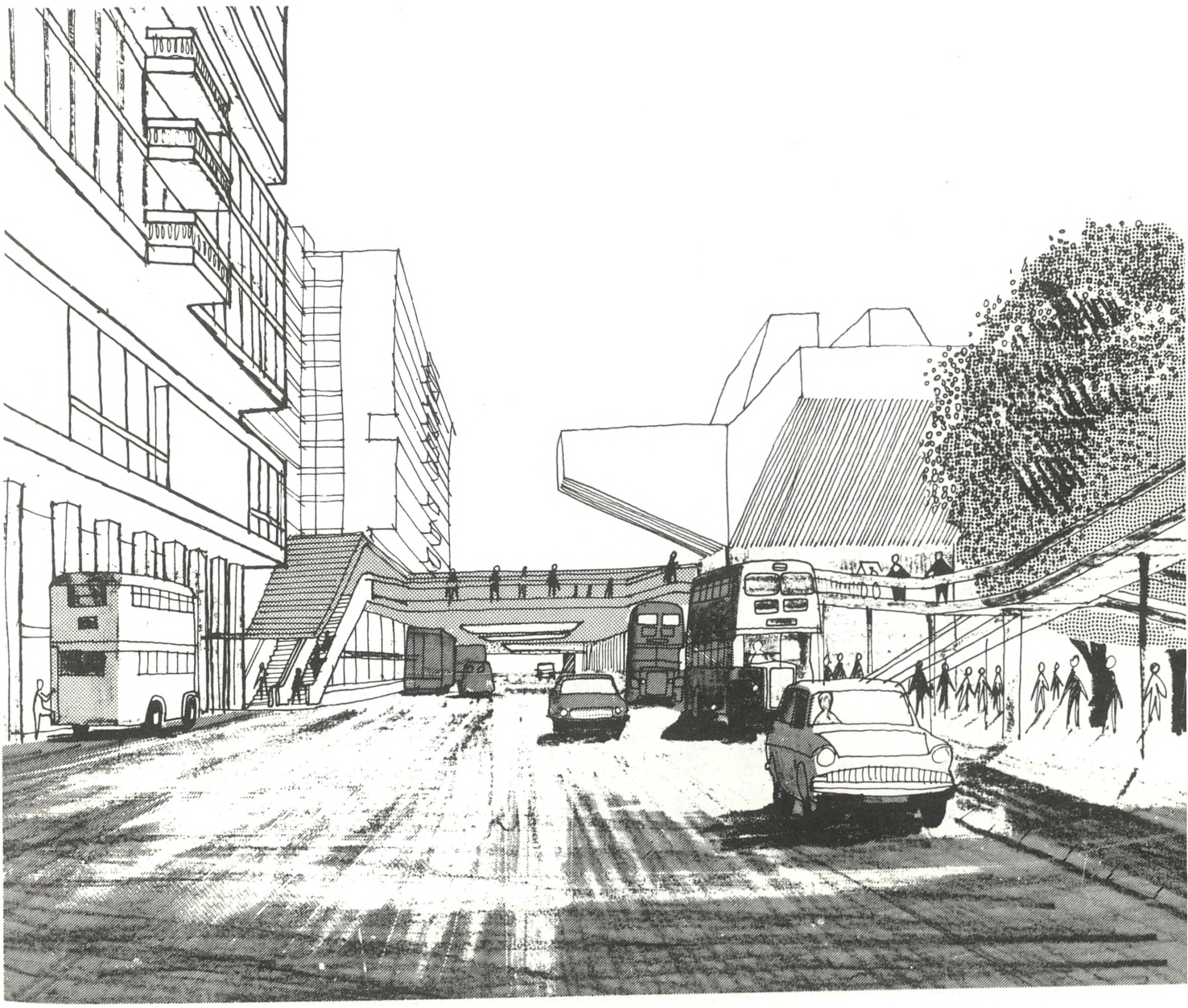
On the east side of the square the student quarter housing will take advantage of its openness (fig. 16).

Grosvenor Square stands at the north end of the multi-level section of the development plan in a complementary relationship to that of the large open space in front of Owens. The key site, a corner one, is suggested for the University Church, entered both from the garden level and the upper level and in its design uniting the two. The Chaplaincy is located at the upper level to serve the students and can be alongside the church although separate from it if this is desired.

This square seems an appropriate site for the University Church particularly as the Catholic Church of St. Augustine is likely to be rebuilt on the west side of the square in the near future and the Congregational Church is also there at the south-west corner. The whole area of All Saints could be transformed in a very few years to provide one of the most attractive places in which to live and work in the whole of Manchester. This is possible largely by virtue of the sizeable open space - a lesson applicable not only to other parts of the Precinct but one which is no doubt being applied to most of the central area of Manchester as well (fig. 17).



16. VIEW SOUTH OVER GROSVENOR SQUARE



17. SITE FOR UNIVERSITY CHURCH

(b) University Departments

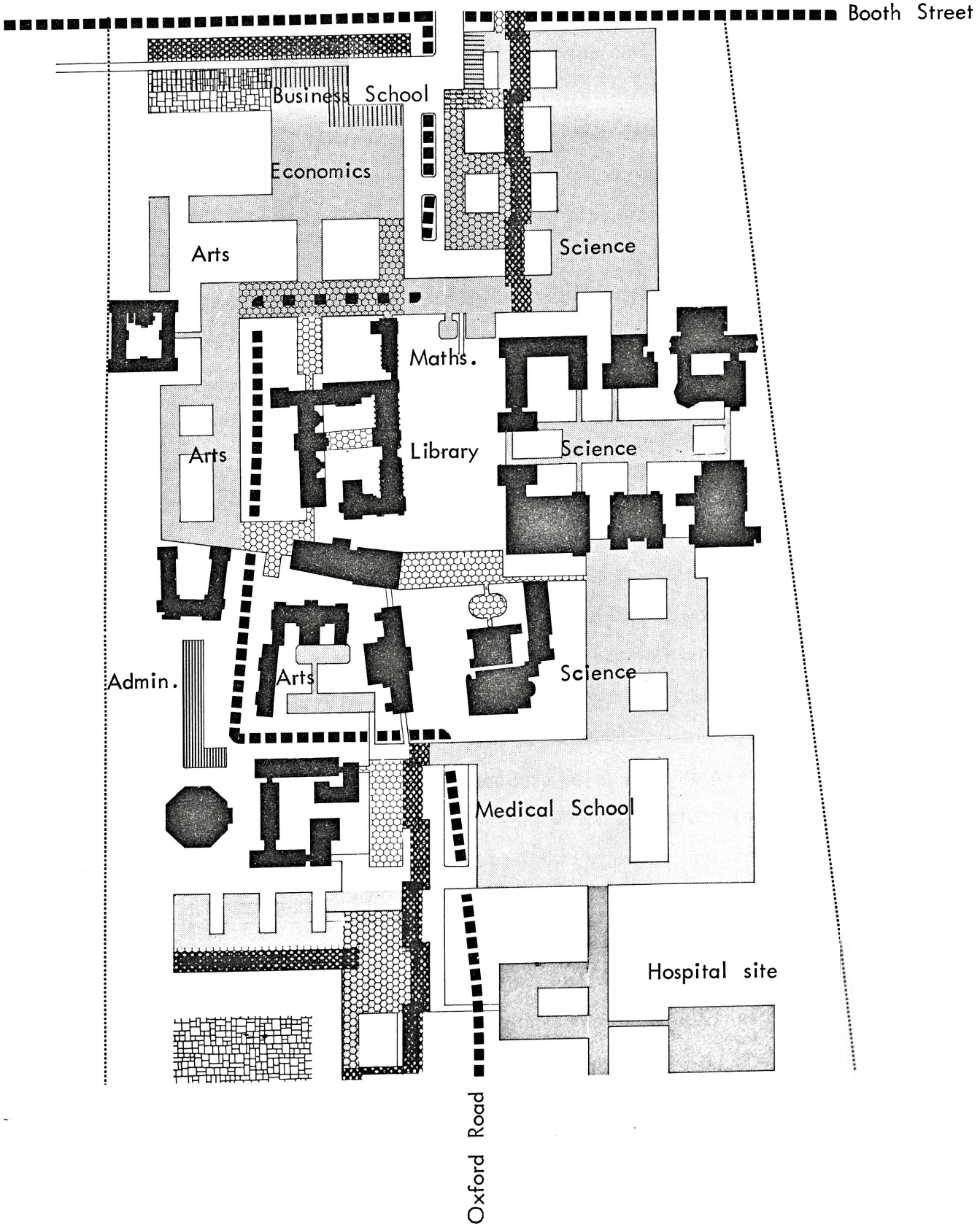
Hitherto the general strategy in the disposition of departments of the University has been to group Science to the east of Oxford Road and Arts to the west and this is still a sound general basis of development. The presence of the Economic and Social Studies Faculty in Dover Street will eventually become an embarrassment both from the need of the Faculty itself to grow beyond the capacity of the Dover Street Building, and the need of the Science departments to grow outwards from the present Science area to the north and the south as well.

It is proposed that when the Economic and Social Studies Faculty require new premises, these be thought of in conjunction with new accommodation for Town Planning, Architecture, Geography, Law, Politics and History, on a site north of Owens and west of Oxford Road. This will make available building land for the expansion of science departments, possibly the biological sciences and Pharmacy towards the new Medical School site north of the Hospital.

The building programmes for Mathematics, Electrical Engineering, Metallurgy, a base for the General Science students and the long range requirements of Physics, should all take place to the north (fig. 18).

Mathematics

The requirements of Mathematics and Statistics are now most urgent in order to release space wanted by others. While their main involvement is with the other science departments, their mode of teaching and space requirements are much more akin to those of an Arts subject and they are more and more becoming, through statistics, a necessary study for students on the Arts side and in the Faculty of Economic and Social Science. It is important that its siting should not place it as an obstruction in the way of expansion of the more purely scientific accommodation requirements of Physics, Engineering and others. The site recommended for the Mathematics building is, therefore, near the Williamson building on the east side of Oxford Road and close to it where access from the west side of the road can easily be made at the upper level pedestrian street. This position is the most advantageous bearing in mind both the short term and the long term disposition of other related departments.



18. ENLARGEMENT OF UNIVERSITY AREA OF PLAN

It is most important that as soon as possible all new work commissioned by the University should contribute towards a unified concept for the area as a whole. The Mathematics building could well do this by giving shape to what could be a fine central open space between the science buildings and Owens. At the same time it will be starting off the new two-level circulation pattern and should incorporate a ramp connecting the upper level with the ground. The programme calls for a large number of small rooms and a few large ones to which greater numbers of people would come. These larger rooms should be kept in a low block for easy direct access from both the upper and lower levels, but the smaller rooms might well be grouped into a very tall tower - the tallest building in the Precinct and one which would dominate the central space outside Owens as well as the long vista seen down Oxford Road from the upper deck (figs. 19 and 20).

The noise level in Oxford Road is a serious problem, at least in the short term, in relation to this particular site which is unusually exposed and it may well be necessary to think in terms of air-conditioning and fixed double glazing for this tower.

Science

The main group of post war science buildings will be completed in the course of the next few years and it is imperative that Brunswick Street, which runs up the centre of the group, should be closed at the earliest opportunity. Consideration should be given to the use of the large space which will then be defined. The usefulness of all the buildings would be increased if they could be linked together. It may be that an extensive single storey structure partially sunk into the ground could perform this function by incorporating covered pedestrian ways and at the same time put the area to good account economically. Certainly any scheme for landscape treatment within the science area should be studied from the point of view of the ultimate use of the space as a whole, even if only a part of it can be realised at the present time. Such a study would need to take account of the eventual pedestrian and vehicular movement in and around the area and in relation to other adjacent movement patterns.

Arts

It is recommended that after the completion of the Humanities building

and the commissioning of the further extension to the Arts building, the rest of the space needed by the departments of the Faculty of Arts should be provided in the proposed building complex north of Owens which is also to house the Faculties of Law and Economic and Social Science. The Arts building extension should take account of any eventual diversion of Oxford Road traffic, by making provision for high level connection over what is now Leamington Street, with further new buildings south of this road.

The Department of Drama could move ultimately into new accommodation adjacent to the proposed Northern College of Music in the west side of Oxford Road. The proximity of such a building and such a body of students and staff, together with those of the Regional College of Art close by, could initiate a mutually fruitful association with the University Drama Department. The new accommodation could perhaps be linked with a theatre to seat about 700 people, be designed in conjunction with the Northern College of Music and be equipped for further experimentation in theatre, television and cinema technique.

Library, Museum & Owens

A series of major dilemmas face the University on the future of the University Library, Owens and the Museum and the facilities they house.

On the one hand it has been decided to centralise the library services; on the other hand, the siting of the present Arts Library, although it has space alongside on to which it could extend, does not lend itself well to this development, being inconveniently far away from the science departments, the new site for the Medical School and the rest of the University when it has expanded into the new sites to the north.

The Owens building is now almost completely given over to administration purposes which it can not be expected to contain as time goes on. Sooner or later the administration will almost certainly require additional accommodation and a new office building should be designed for this purpose. Two queries arise out of this. Where should the administrative headquarters be eventually ? What should be the future of the Owens buildings ? The Museum seen in the context of the physically expanding University occupies a site of an importance which exceeds that of

the Museum in the life of the University. At the same time the Museum itself, which needs to expand, cannot readily do so where it is.

It is recommended that serious consideration should be given to a three-cornered move which might solve all three problems:

i. The early erection of an administration building on the site hitherto reserved for the Library extension to the south. In this new location it could be designed to allow for any further extension which might be needed in the future and it would be sited where it would be convenient for visitors if Oxford Road traffic is diverted along Leamington Street and Bridgeford Street.

ii. The taking over progressively of the Owens buildings by the Library.

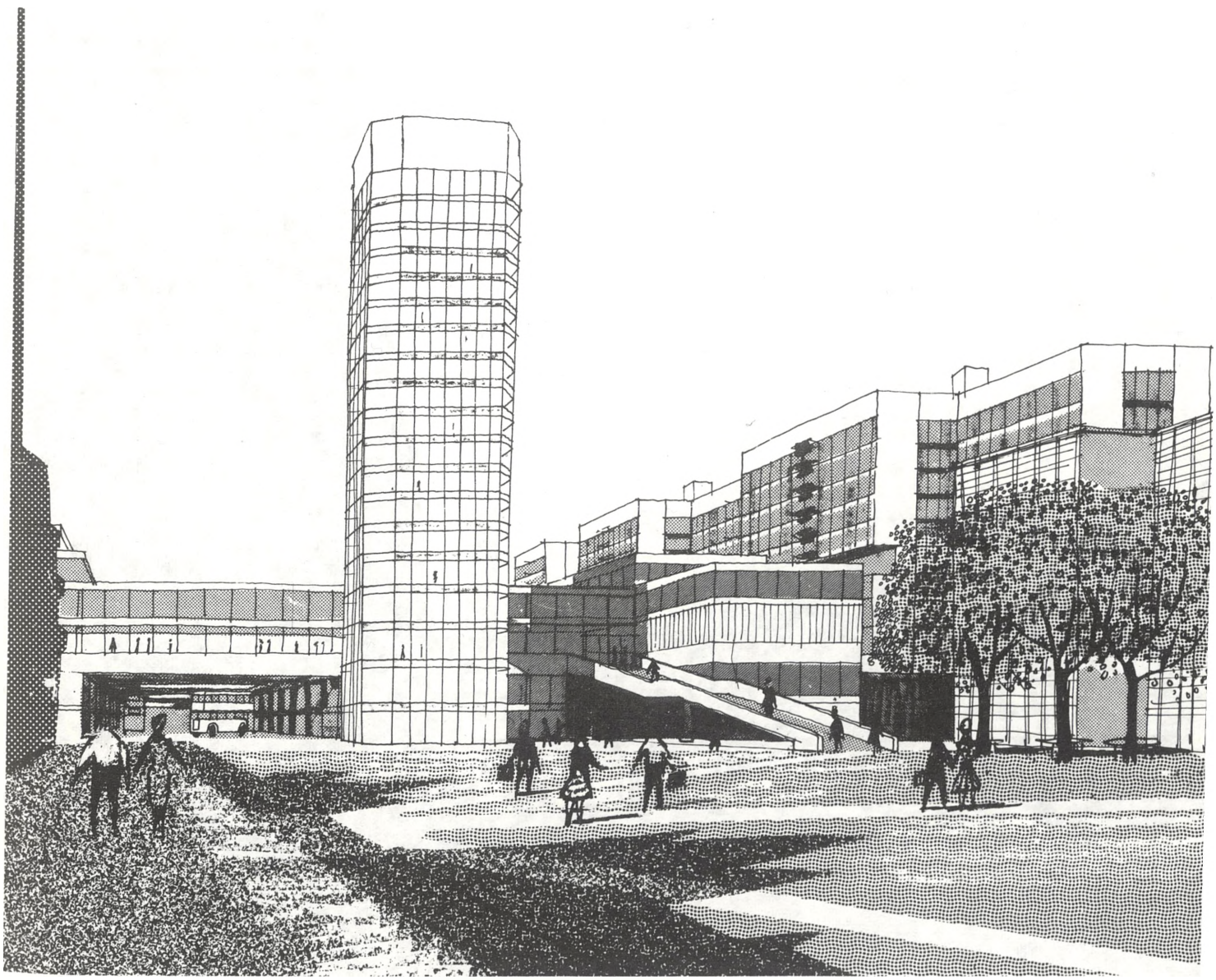
iii. The transferring of the Museum into what is now the University Library (fig. 21).

The final siting of all three facilities would accord well with the eventual shape of the growing University. The Library would be at the historic and actual centre of the whole complex in a building of some 200,000 square feet - the amount of space it requires. The rooms in Owens would lend themselves well to library use if a central catalogue and control room were built across the quadrangle.

The present Library would make an excellent and spacious Museum easily reached by the public but not occupying land of strategic importance in the Precinct.

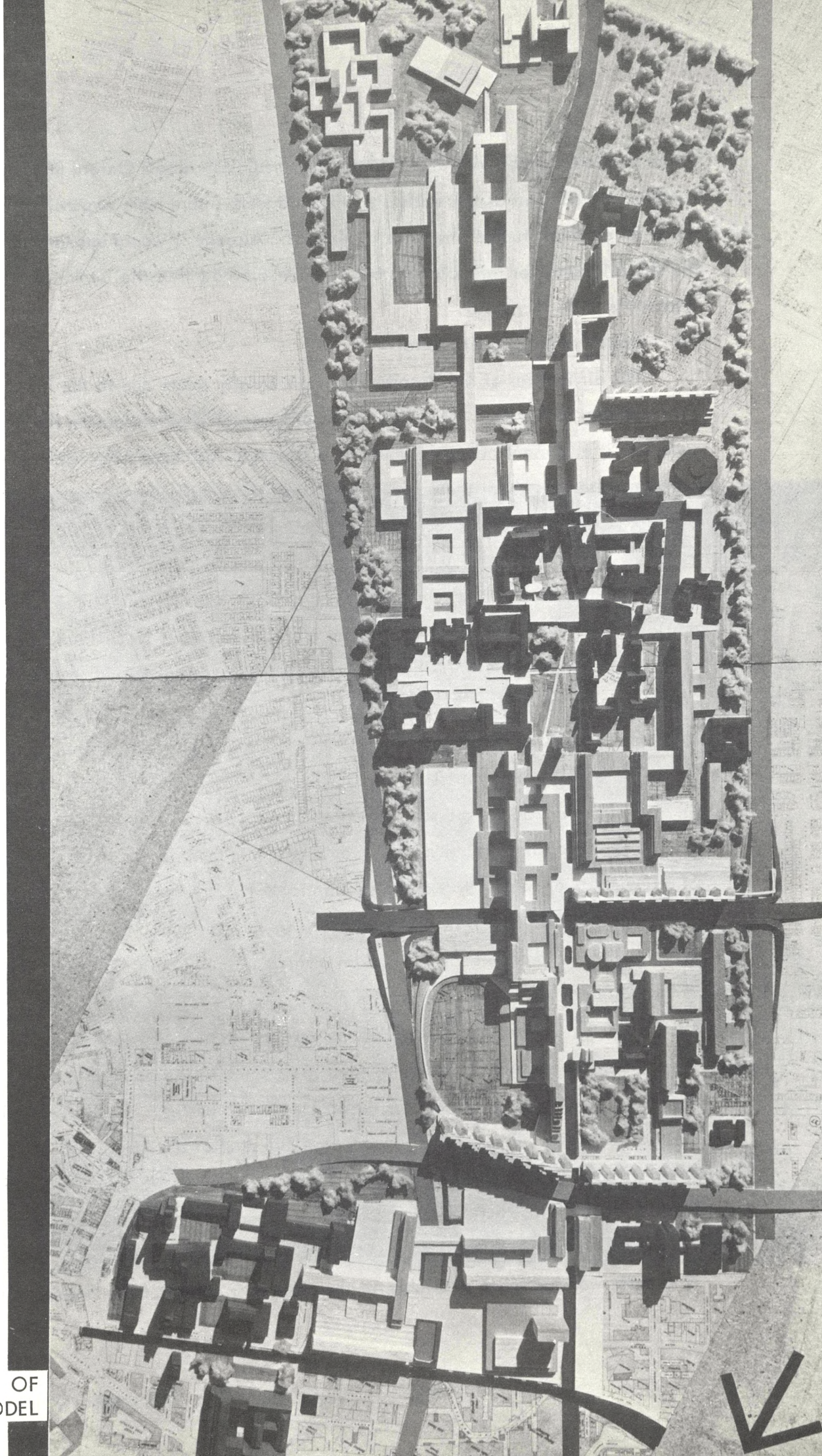
Medicine

The proposed site of the Medical School to the north of Grafton Street is a good one in relation to the Science buildings and to the Hospital site, the principal difficulty being the proposed inner ring road which has already been mentioned. Medical studies tend to involve the student more completely than most other subjects so that proximity of the school to the Union and the Refectory is an advantage which will offset this tendency as far as possible. Easy access between the two should be considered in the planning of the school, both for the short term, when crossing Oxford Road at ground level will become ever more difficult and some form of bridging would be the best solution, and in the long term, when Oxford Road would be diverted, making possible easy contact with the Union at ground level. The eventual linking at an upper level



19. MATHEMATICS TOWER AND THE LAWN IN FRONT OF OWENS

20. EXTENSION OF REFECTORY ACROSS OXFORD ROAD



21. AERIAL VIEW OF PRECINCT MODEL

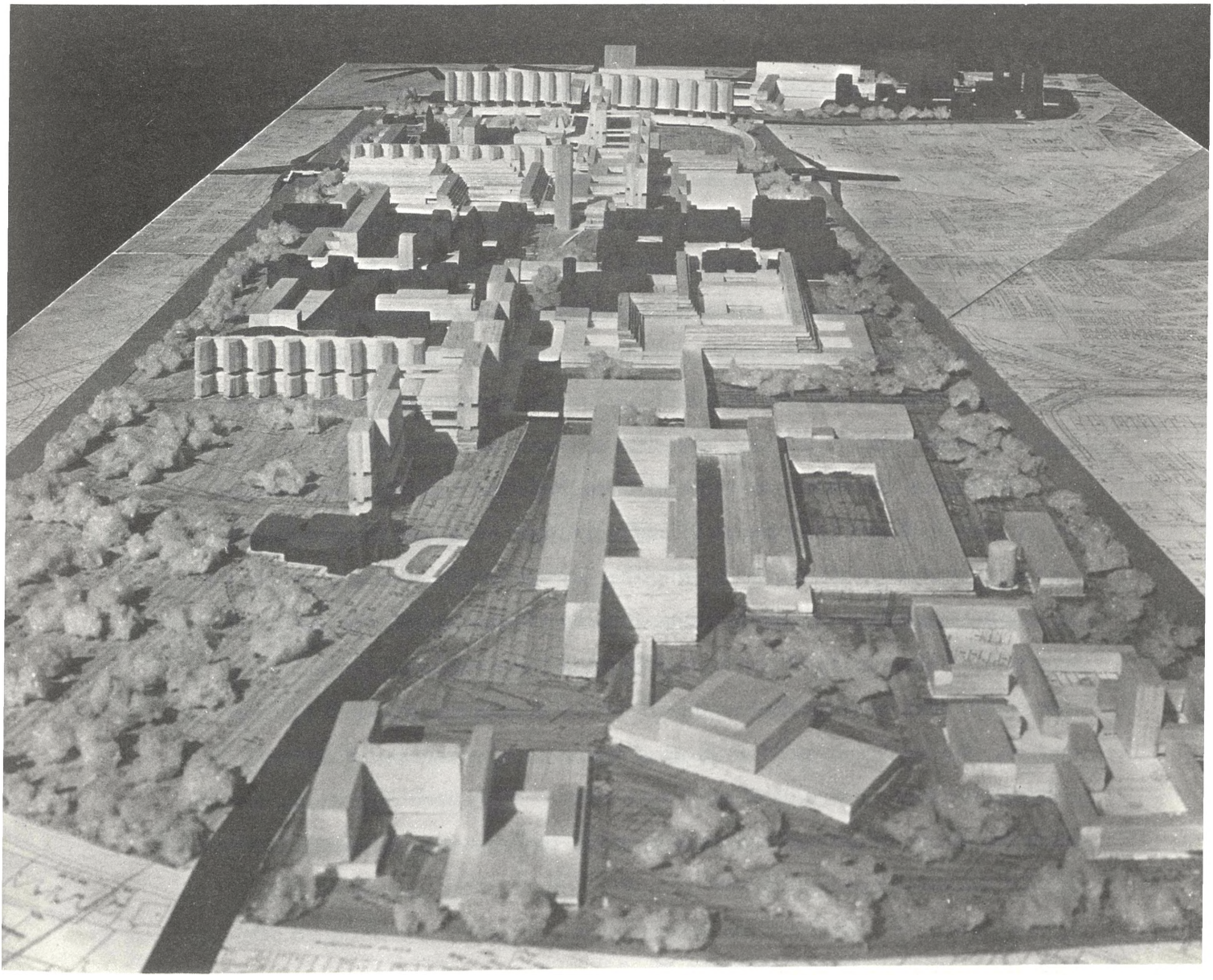
of the Medical School with other buildings immediately across Oxford Road, if taken into account at this early stage, could well ensure more expansion space for medical studies when this is needed. Already it would appear that the site allocated for this school is barely adequate now that the intake of students is to be increased.

(c) United Manchester Hospitals

The difficulties of the Hospitals are particularly acute due to the intense overcrowding of the site. Any attempt to reconstruct it piecemeal on the same site it at present occupies would be a slow and very expensive operation. Much more serious than these considerations of time and money, however, is the fact that the Hospitals would be faced, for perhaps twenty years, with trying to carry on amid noisy and dusty building and demolition operations. These conditions are almost impossible for anyone to bear for any length of time, particularly in a hospital where quiet and cleanliness should be first essential conditions of treatment. The serious consequence for both patients and staff can be readily foreseen. The immediate and over-riding need, therefore, is to create some working space on which the Hospitals' reconstruction can proceed.

There are two main possibilities. The first to be considered was to build in Whitworth Park across the road which could probably contain the major part of the new Hospital buildings. This would have the virtues, being an open site, of allowing a very early start and a substantial part of the work to be completed at the outset. Moreover the ideal relationship with the proposed Medical School could be studied and perhaps realised on a single site and building operations would hardly affect the working of the Hospital. There are difficulties with this solution in that in the intervening years before an exchange of land would allow a new park to be made, the people living in the area would be deprived of an open space and there are few enough of them in Manchester. Further while an ideal relationship might be developed in the planning of the Medical School and the Hospitals it would be impossible to maintain the desirable contacts between the Medical School and the Science departments of the University.

For these reasons the second of the two possibilities is favoured. This is to make working space available at the north east corner of the Hospital site



HOSPITAL SITE SEEN IN RELATION TO UNIVERSITY LAYOUT

by the clearance of some 122 houses, many of which are already in a poor condition. On this land the urgent priorities of the Hospitals building programme could be implemented in a position which could accord well with their correct location in the ultimate development plan. The clearance of these houses is something which will have to be done sooner or later; the only new factor occasioned by the Hospitals need is an advance of the date of their demolition.

(d) College of Science and Technology

The design of Area A has already reached an advanced stage and this will be the scene of the major building acitivity at the College until 1967 when further developments will require more land. The proposal to extend Staff House is to be welcomed as an opportunity to increase the scale of the north facade by adding another floor and by making it longer. This will greatly improve the quality of the space between this building, the Students Union and the Renold Building. For these reasons it has been recommended that the plane of the north facade should be maintained, the extension planned without a setback and the bridge connection linking Staff House and the Students Union kept well to the west corner of the Union building. In this way the south wall of the Students Union can be preserved intact, an important consideration when the space between it and the Mill is cleared of the present clutter of huts and most important of all in the long term reconstruction of the Mill site.

Reference has already been made to the fact that Sackville Street should not connect to Road 17/7 even on a temporary basis; it should become merely a part of the service road system within the College area. The servicing of the various entrance points of the buildings already planned entails the use of a loop road. The amount of service traffic using this road is very small and, since great numbers of students and staff are constantly moving about the site on foot, it is recommended that the road should be considered primarily as a pedestrian concourse and detailed as such with a route capable of taking heavy loads conveniently aligned and clearly marked over it without the use of kerbstones. Surface finishes should be used consistently throughout the area so that the appearance of the whole site can be made more attractive and designed primarily with the pedestrian in mind.

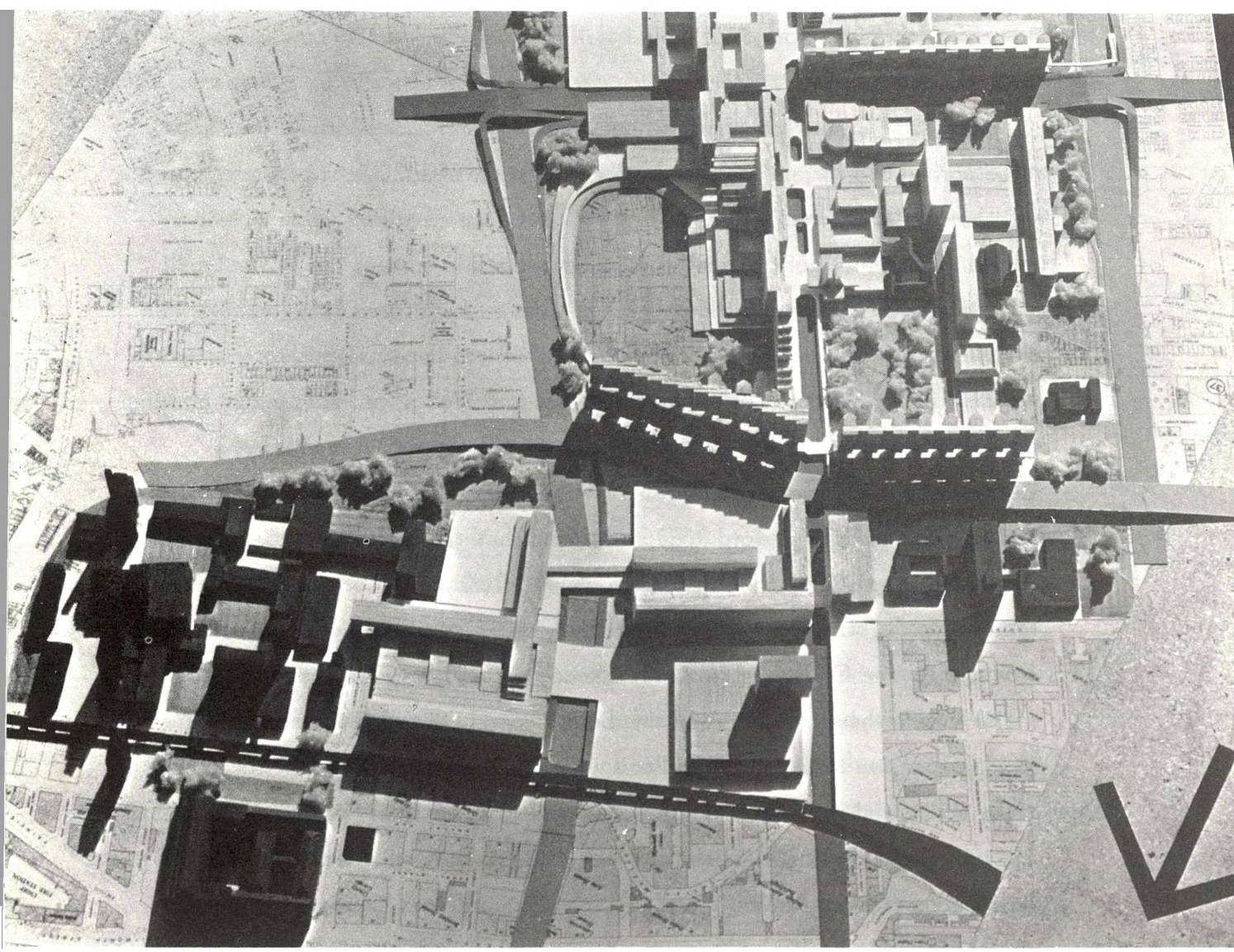
In this context the siting of car parking is important as a visual component of the environment. There is nothing more visually disruptive of a setting than a random scattering of cars along kerbsides. It is possible to provide car parking grouped in substantial blocks on Area A and Area C (bounded by the railway, Sackville Street, the main building and Chandos Hall) which together could provide places for about 270 cars in positions where they would not intrude too much on the scene.

There will be a temporary and immediate difficulty in the car parking situation when the Electrical Engineering and the Mathematics building are commenced. This will have to be temporarily relieved by surface parking on Area B. Whilst up to 800 car places could be provided temporarily on Area B, this great increase in provision could well be an embarrassment later when Area B has to built on.

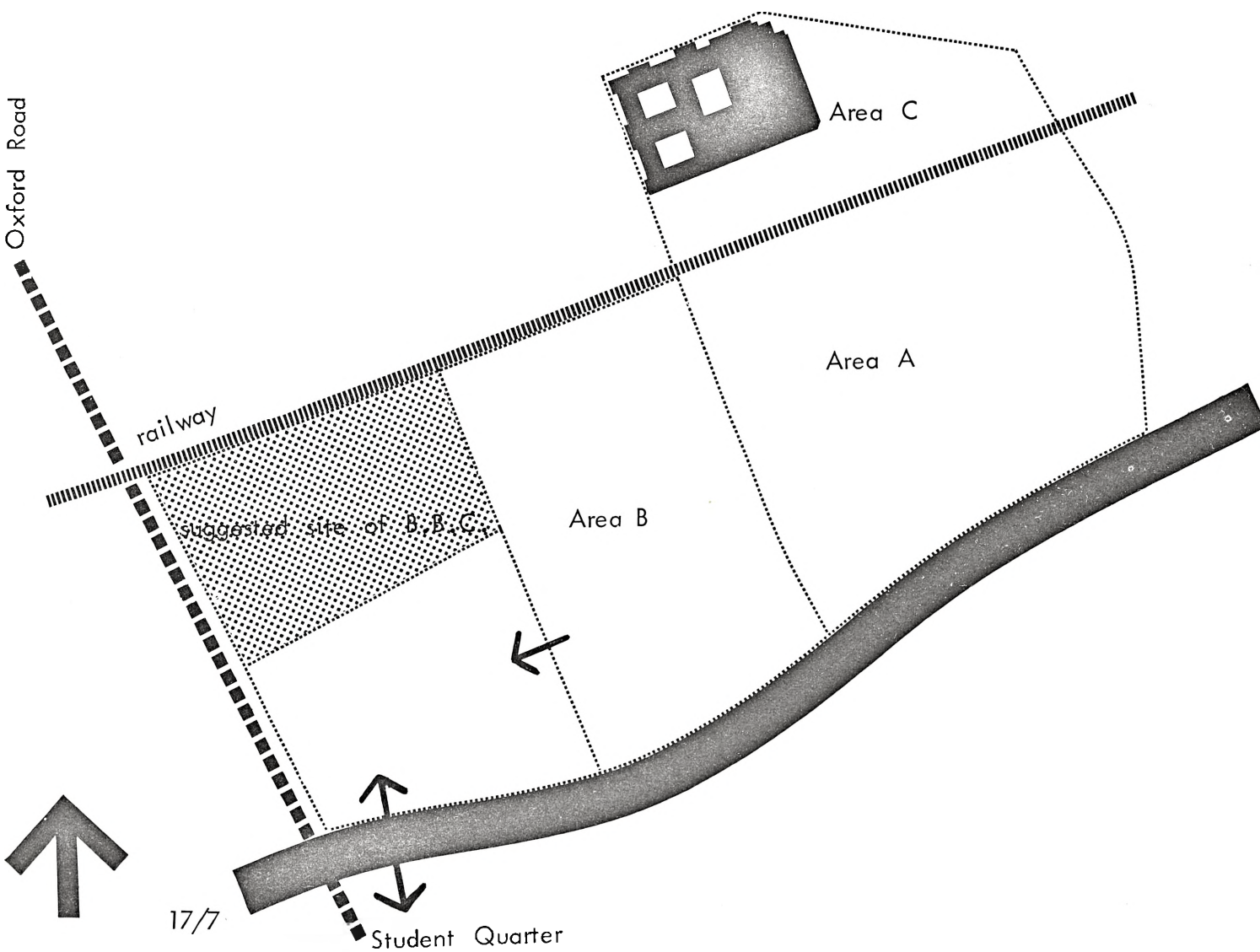
By 1967/8, the long term permanent provision for car parking will have to be agreed and some of it in operation. A total of 1,200 car park places could well be needed by the College by 1972, so that the development of Area B should take account of the need to accommodate 930 cars.

The ultimate form of the development on Area B is thus being conditioned by several factors. Most important of these will be the academic requirements which it is important to crystallise as soon as possible. The level of car parking provision is another. A third consideration is the direction in which the College ought to expand after Area B. There are good reasons for the expansion taking place towards Oxford Road; the land there is likely to be cheaper and more readily available than that north of the railway; it could provide another area about the size of Area B and adjacent to it; it would provide a valuable frontage for the College on to Oxford Road, valuable in that this will be the major link in the future between the College and both the City and the University.

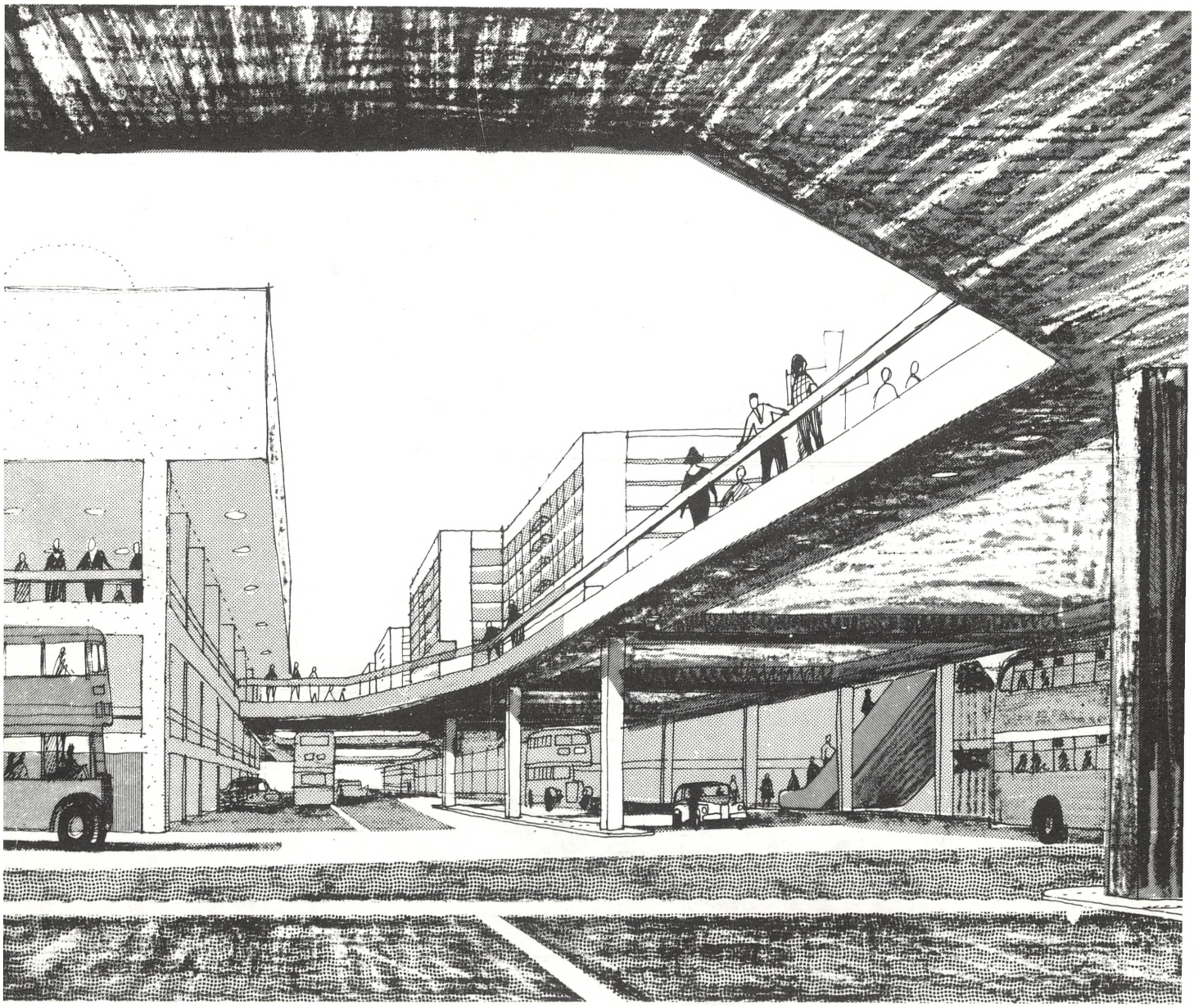
Expansion towards Oxford Road will require the building forms on Area B to be conceived in terms of a high level access which would only be a few feet in level above that of Altrincham Street. This level projected across Area B will bridge Princess Street, clear of the traffic and meet Oxford Road one floor above ground level (fig. 22).



EXPANSION OF COLLEGE TOWARDS OXFORD ROAD



22. FUTURE EXPANSION OF COLLEGE



23. PEDESTRIAN DECK LINKING COLLEGE OF MUSIC WITH STUDENT HOUSING

(e) British Broadcasting Corporation

The B.B.C. has been allocated land in Oxford Road immediately north of road 17/7. Whereas it seems likely that their proposed building could be located equally well a few yards further north along Oxford Road, it would be of immeasurable benefit to the College to be able to have more direct contact under road 17/7 with their student quarter.

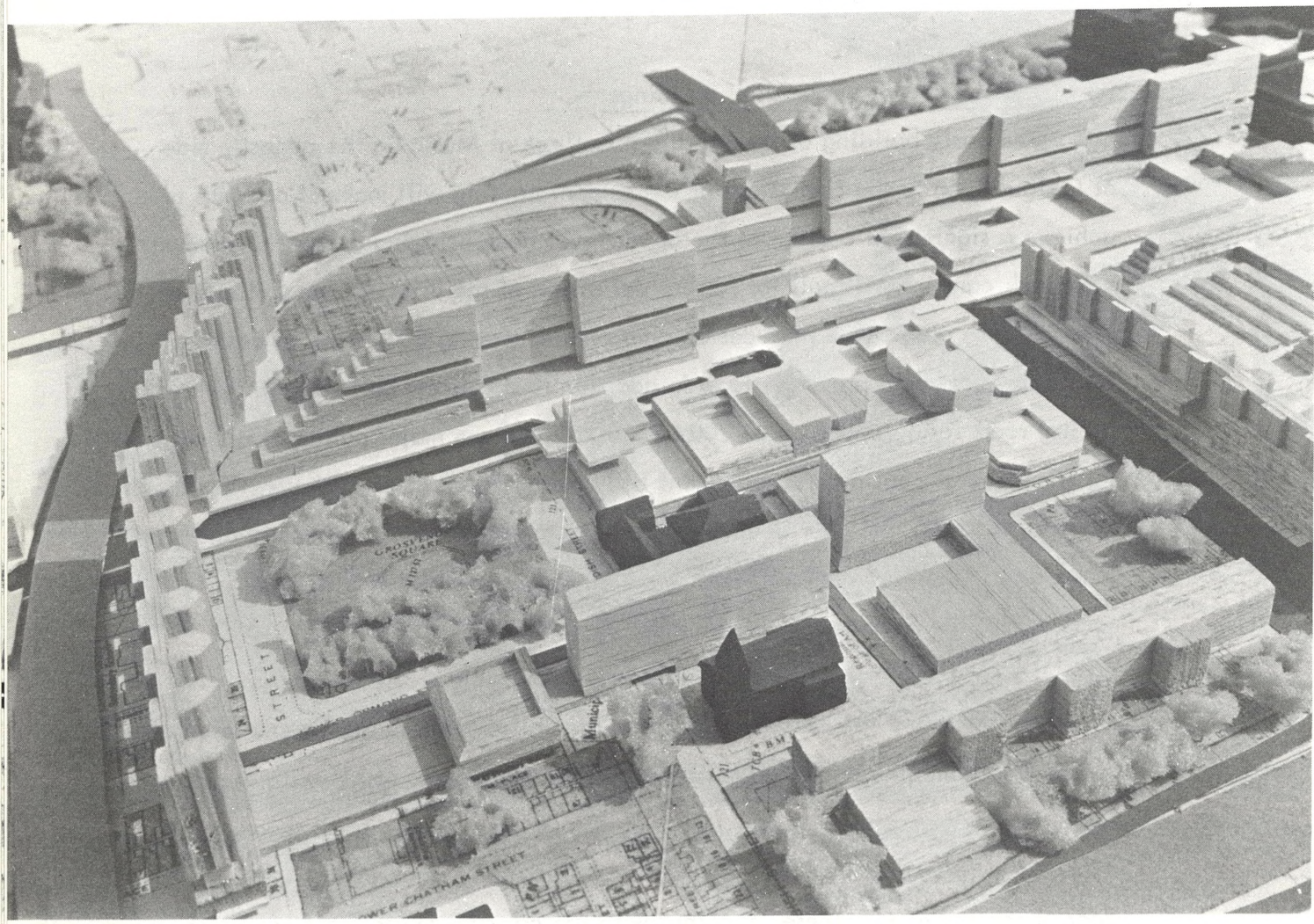
It is strongly recommended that the possibility be investigated of the City making immediate provision on the College's behalf for land with a frontage on Oxford Road, and if it can be arranged without prejudice to the timing of the B.B.C.s building programme, that an exchange of sites be effected to enable the College to have a continuity of development with their student quarter.

The exchange could be of benefit to the B.B.C. also in that they would be further away from the noise of road 17/7 and slightly nearer the centre of town. town.

(f) Local Authority Education Buildings

The early building of the Northern College of Music on the opposite side of Oxford Road to the first phase of the student housing will make it possible to achieve a significant section of the upper level deck bridging across the roadway. This deck concept will call for further definition of the brief for the College of Music. The programme includes an opera house seating 800, with orchestra pit for 70 players and a practice stage in addition to a concert hall to seat 500 and recital room for an audience of 200 to 250. These are major points of attraction for the general public and the student body of the Precinct as a whole. The main foyer of the College leading into the opera house and the assembly and concert hall should be entered from the upper level and this will determine to some extent the arrangement of the plan.

The College of Music could be a major generator of life and activity on the upper deck and this is a vital factor, especially at the outset of such a scheme. At the same time the deck will serve to link the College of Music with the student facilities built across the road. Music and instrument shops, book shops, cafes and coffee bars could be located at the east side of the deck opposite the front door of the college. These, together with the common rooms and refectories,



LOCAL AUTHORITY EDUCATION SITE

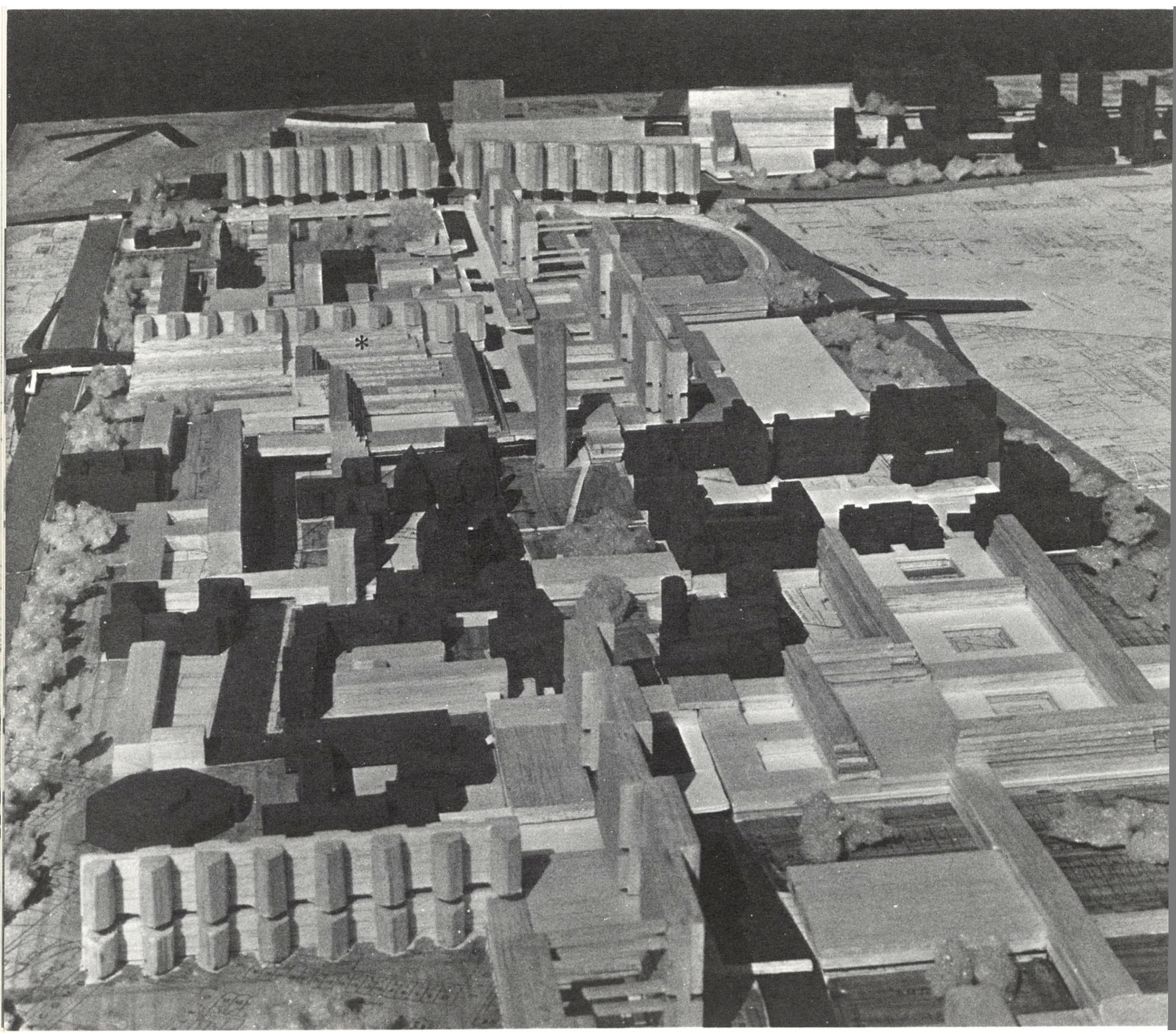
would provide places for students of music to meet and associate with other students (fig. 23).

As further programmes are prepared for educational developments to be sponsored by the Manchester Education Authority they will be considered in relation to the overall planning proposals for the area. In this connection it is important that everything possible should be done to remove any barriers which exist between the students in the various institutions in the Precinct.

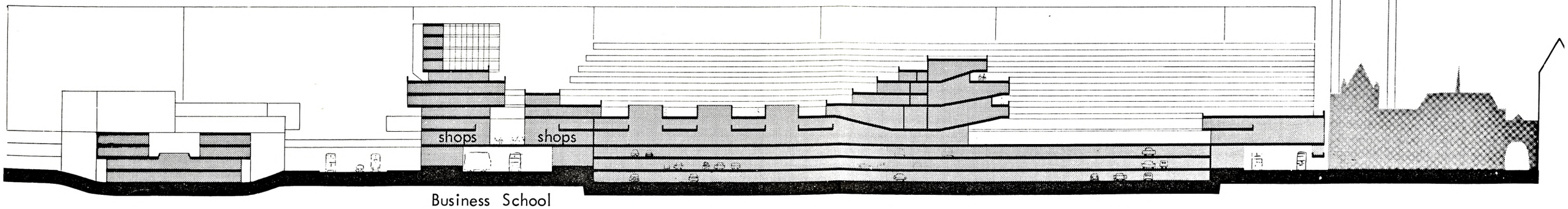
(g) Business School

The Business School with its housing accommodation is located in the south facing block over the shopping arcade where it will be easily seen from the main shopping square. Similarly at ground level, approaching along either Oxford Road or Booth Street the school would be easy to find and separate car parking can be arranged for it at ground level.

Being close to the College of Music and the first phase of the student quarter, an early start on this particular project, together with some of the shops, would make a significant beginning to the regeneration of this part of Manchester (fig. 24).



* SITE OF BUSINESS SCHOOL



0 50 100 150 200 feet

24. SECTION THROUGH SHOPPING ARCADE AND BUSINESS SCHOOL

7. FURTHER PROGRAMME OF STUDY

The principles on which work has been proceeding and the general framework of the interim planning proposals have been outlined above. If these are acceptable to the Joint Committee and the constituent authorities, detailed work can proceed on the urgent building projects.

More precise proposals on the overall planning of the Precinct must arise out of a fuller knowledge of the facts of the situation and many of these can only be ascertained by comprehensive survey. Discussions with many members of the University and College, both on the academic and administrative sides and with representatives of the City and the Hospitals, have exposed the areas of the problem where such surveys could be most fruitfully carried out and much valuable help and co-operation has already been obtained from everyone concerned. Some of these surveys are well under way and others are being framed at the present time. Among them will be studies of the space already available and the way this is being used both from the viewpoints of its functional adequacy and the degree of its utilisation. Analysis of pedestrian and vehicular movement will be made and calculations of what these are likely to be in the future. Studies into the necessary level of car parking provision will be carried out. A survey of shopping needs in the Precint and the adjoining areas will reveal more precisely what level of shopping provision will flourish on the site. It is hoped that techniques of evaluation of space requirements will be developed which will be sensitive to unexpected shifts of emphasis in study patterns and which may be of use in timetabling. Cost studies will also be made to enable building programmes to be accurately formulated.

To enable further progress to be made it is important that decisions should be taken on the basic proposals as follows:

1. To agree the form of the main road network in the area of the Precinct and in particular the future role of Oxford Road, both in the City network and in the Precinct plan.

2. To adopt the principle of maximum separation of pedestrian from vehicular traffic throughout the site and to achieve this by raising pedestrian movement to

a level above the traffic in those areas where new buildings are to be erected in the region of traffic roads.

3. To agree that residential accommodation should be provided in the Precinct site rather than elsewhere.

4. To agree standards of car parking provision to be made throughout the area.

The plan can be the means of facilitating the programming of land acquisition and of defining the extent and limits of specific building programmes. Eventually it could also define the basic content of building programmes from space and use survey data. Planning is a continuous process and there will be a need for close collaboration with individual architects to ensure that the many elements common to all parts of the total development such as the main services networks, the method of lighting and design of major access routes, paving and landscaping are carried out in a way which will unify the design of the whole area without imposing arbitrary restrictions on the programme or the architects.

8. SUMMARY

(i) The Precinct covers some 280 acres; is one third of a mile wide and one and a quarter miles long.

(ii) The site contains the major development of the Victoria University, the College of Science and Technology, the Regional College of Art, the John Dalton College of Technology, the College of Adult Education and the Teachers' Training College, the Northern College of Music and office headquarters for the Union of Lancashire and Cheshire Institutes. The area also includes the site of the Manchester Royal Infirmary and various specialist hospitals and adjoining it to the north is the site reserved for the proposed new B.B.C. Studios and offices. On each side large city housing redevelopments are either proceeding or proposed.

(iii) The original Master Plan for the University was prepared by Sir Hubert Worthington and was incorporated in the City of Manchester Plan published in 1945. This plan was developed on strong axial lines in sympathy with the then known requirements and generally accepted University planning principles. Academic pressures and changes in concepts of education, not to mention the problems of traffic, have tended to invalidate such a theme and the proposals now put forward are based on a more organic approach to the problem of providing a satisfactory environment whilst maintaining the maximum flexibility in developments in terms of academic and building requirements.

(iv) Oxford Road runs down the middle of the site and at present is one of the main traffic routes into the city from the south east. The roads on either side of the site, Upper Brook Street and Cambridge Street, are to be widened and improved in the City's Development Plan and the site is crossed by link road 17/7 which is to be built immediately north of Grosvenor Square.

(v) It is envisaged in the City Development Plan that an inner ring road should run approximately along the line of Grafton Street to the north of the hospitals area; it is suggested that further consideration should be given to the line of this road since it will have a very detrimental affect on the Precinct.

(vi) Traffic within the Precinct should be restricted to those vehicles having business in the area and to public transport vehicles passing through the Precinct

and providing access from other parts of the city.

(vii) Major car parking provision will be required and present forecasts suggest that the long-term demand could well be of the order of at least 10,000 car spaces and might be very much higher.

(viii) The proposals include the retention of Oxford Road, with a diversion around the back of Owens, but the use of this route should be restricted to vehicles having business in the Precinct and to public service vehicles passing through the area.

(ix) A series of service roads to give access to the various groups of buildings is taken from the realigned Oxford Road.

(x) Main car parking areas are served from junctions on the peripheral roads at Upper Brook Street and Cambridge Street and there is the possibility of a cross route on the line of Booth Street to link the housing areas at Hulme and Rusholme, although further consideration will be required before this proposal can become firm.

(xi) The problem of providing maximum separation of pedestrians and vehicles is resolved by the provision of an upper level system of pedestrian walks and spaces running around the line of Oxford Road, excluding the length between Owens and the Science blocks. From these pedestrian spaces access is obtained to the new academic buildings and also to communal and ancillary accommodation such as shops, restaurants, clinic, meeting rooms, etc., with study bedrooms above forming a strong "spine" to the Precinct.

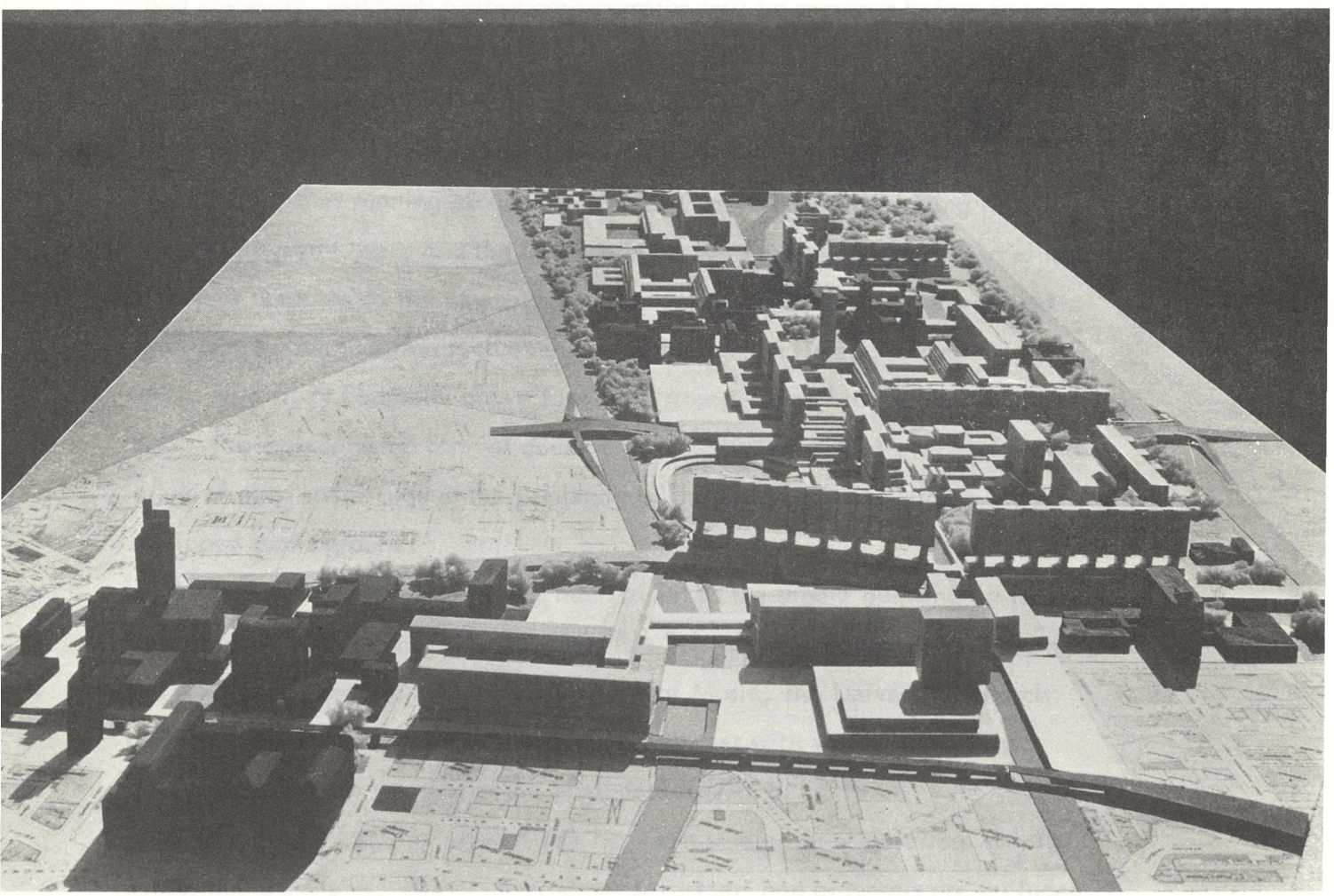
(xii) The concentrated form of development suggested will allow considerable areas of open space around the periphery of the Precinct, including a fully equipped sports ground.

(xiii) Immediate consideration has been given to the urgent building projects and sites are allocated for the new Business School, the Mathematics Buildings, the Medical School, the Northern College of Music, the University Church and the Catholic Church of St. Augustine together with various ancillary accommodation and the first group of student dwellings.

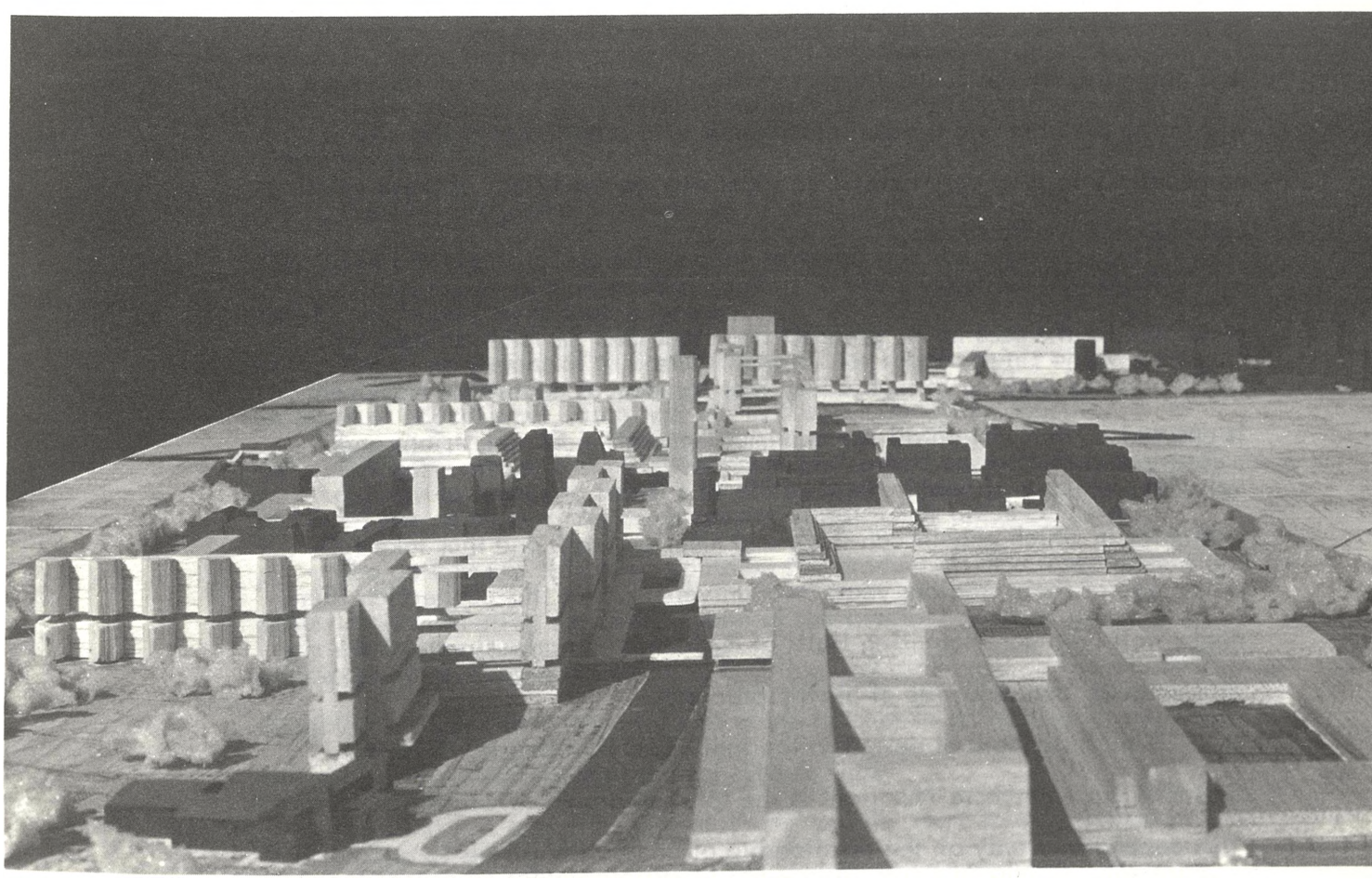
(xiv) The problem of the hospital site has been studied in association with the consultant architects, Messrs. Fry, Drew & Partners and proposals are included

for the demolition of some existing houses to provide a site for the first new developments there.

(xv) A series of points are put forward on which decisions are required so that the whole scheme can be studied in greater detail over the next twelve months to provide a framework to guide the future development of the Precinct.



GENERAL VIEW SOUTH



VIEW NORTH ALONG OXFORD ROAD

APPENDIX "A"

Paper prepared for the Joint Committee by the Consultant.

The decision to develop comprehensively a large area of land close to the city centre for educational purposes presents opportunities for the creation of an environment for University and College life which could be quite unique. At the same time there are great and pressing problems to be faced arising out of the existing and potential traffic conditions in this sector of the city, the need to clear large areas of the site for redevelopment, and the time factor with considerable building schemes in progress or in prospect.

It is important, in this location, that the University and Colleges should enrich the life of Manchester and in turn should be influenced by the contribution which the city can make.

The site takes the form of a long narrow tongue of land reaching almost to the heart of the city, on either side of a main traffic road, and which will be bounded by two radial traffic routes and crossed by a main link road and, it is proposed, by the future inner ring road. To ensure ease of movement within the precinct and a good relationship with other parts of the city it will be necessary to give very careful consideration to the effect of these existing and proposed traffic routes.

There will be heavy flows of traffic, pedestrian and vehicular, generated by the uses in the precinct and steps must be taken to deal with traffic and car parking in such a way that freedom of pedestrian movement is ensured. This will entail the maximum separation of pedestrians and vehicles, which will permit the creation of a series of spaces of varying character in which people can stroll and meet and talk and thus take full advantage of their precious years in a University. In this connection there might well be a case for siting Halls of Residence in various parts of the site thus ensuring continual use of all the precinct.

A high standard of design in the individual building is, of course, essential but even more important is the total environment within the precinct. This depends not only on the relationship of one building mass to another and of the spaces thus created but also on the landscaping of the whole area

including paving and planting and all the elements of an urban setting in the form of steps and walls and seats, sculpture and water. A walk through the precinct should provide a pleasant and stimulating experience with an ever changing scene and ample opportunities for chance encounter.

The requirements of an overall town plan would appear to fall into three stages:

1. An immediate programme of work, to be completed within the shortest possible time, to assess the present position and to decide which of the projects now at drawing board stage can proceed and which should be deferred for a very limited period to allow further consideration to be given to the overall plan.

2. The preparation of an overall plan laying down the main framework and principles for the development of the precinct. This work should be completed within 18 months.

3. Study in greater depth of various parts of the site, within the main framework.

The work of the planning team would, of course, involve close contact with all the interests involved and continual consultation with the Planning Department of the City Council.

General procedure would be as follows:

(1) The collection of existing survey material and the organisation of additional studies as may be necessary.

(2) The development of the brief covering the requirements of the precinct in terms of educational, architectural and communications aspects.

(3) The preparation of a comprehensive plan based on the survey material and brief and related to the development of adjoining areas of the city.

The outcome of this work would be the production of a three dimensional master plan indicating the overall form of the precinct and setting out the principles of development including building and landscape. This master plan should be regarded as a framework to guide but not to stifle development and should be subject to reappraisal from time to time.

Planning is a comprehensive activity and the team to be engaged in such a project should be representative of the various skills involved: planning,

architectural, engineering and landscape. In terms of numbers the composition would change as work proceeds but the basic team would probably consist of 1 or 2 research planners and 3 or 4 architect planners with traffic engineering and landscape contributions from consultants who would be associated with the consultant planner. Draughtsmen and a model maker could also be introduced in to the team as necessary.

L. Hugh Wilson, O.B.E., F.R.I.B.A., Dist.T.P., M.T.P.I.
24th October, 1963.

APPENDIX "B"

MANCHESTER UNIVERSITY PRECINCT

Preliminary Report upon the Road and Traffic Aspects of the Proposed Redevelopment

Prepared for Hugh Wilson and Lewis Womersley
by Colin Buchanan and Partners

CONTENTS

INTRODUCTION

1.1 This report is the result of your approach to us for advice on the road and traffic aspects of the redevelopment of the Manchester University site [+]. Your immediate task (as we interpret it) is concerned with the drawing up of a general framework for development for the whole site in order that intermediate developments may continue. Our advice on this matter has been drawn up in the light of the Ministry of Transport circular 1/64 following the publication of the report "Traffic in Towns".

1.2 At this stage our assessment of the movements which will affect the site has only been on a qualitative basis. Until the suggested surveys are carried out, it will not be possible to make the quantitative estimates necessary for a thorough appraisal of both the internal and external access routes.

Some of the comments we have made are upon matters outside your own terms of reference. We have nevertheless felt bound to make them because of the profound effect that such aspects will have upon the future development of the site.

1.3 We acknowledge the assistance given by the Manchester City Planning Department in providing us with information about the current road proposals in the area.

[+]Unless otherwise stated in the report, the term "University Site" means the whole of the area to be redeveloped for the University, the College of Technology and all other academic institutions it is proposed to bring into the area, the term "University" embraces all of these uses.

THE EXTERNAL ROAD SYSTEM AND THE INFLUENCE OF CITY TRAFFIC UPON THE PRECINCT

2.1 It is one of the aims of the proposals to plan the whole of this site of 280 acres or so, for University and associated purposes and that ultimately the day time population may be 40,000 people. It would therefore appear to be of paramount importance that within the site, the safety, convenience and comfort of the occupants should take precedence over traffic movements. It should form a major "Environmental Area" as described in the report "Traffic in Towns", from which through traffic should be diverted, just as it should be from a township of similar size.

2.2 We have examined the current proposals for new and improved roads in the vicinity of the site and have found one or two aspects which are seriously in conflict with this concept. We are of the opinion that the whole of the City road system in the area should be reviewed both in the light of the University proposals and in consideration of the results of the transportation study which we understand is soon to be undertaken. It is now well understood that the road requirements of the conurbation must be considered as a whole. The setting up of the S.E.L.N.E.C. Committee was obviously a step in the right direction but the results of the transportation study, when they eventually become available, will undoubtedly throw serious doubts on the validity of the present road proposals which are based primarily on the so-called improvement of the present road pattern, without the benefit of detailed quantitave assessments of future demands for movement between and within the various parts of the City. Only when the relative weight of the various demands for movement between parts of the town are revealed in relation to future development, will it be possible to determine the most suitable pattern and scale of roadworks and this may be entirely different from the present pattern. A further deficiency in the current road proposals as we see it is the apparent lack of a hierarchy of distributor roads of various kinds, a feature which has been found to be absolutely necessary for the safe and efficient circulation of vehicles in an urban area of this character and size.

2.3 In view of all this we find it difficult to give advice on the way the internal road system and the points of access thereto from the City road system should be planned. At this stage we can only anticipate some of the findings of the transportation study and make tentative suggestions as to the context within which the University site planning should proceed. Firstly there is an obvious need for major radial routes into the City in the vicinity of the University but when these are considered in relation to the environmental needs it is clear that neither Upper Brook Street nor Cambridge Street, and certainly not Oxford Road, are suitable routes since they all pass through many environmental areas. The primary routes will therefore have to be located along other lines and the function of the existing radials on either side of the site will be no more than that of district distribution. As such there will be a need to curtail severely the number of junctions along their length and to remove frontage development as far as possible, since, even in their performance of this limited function, they will have to bear considerable traffic loads. The demands for movement in an east-west direction in the vicinity of the site are not so clear; their full extent will only be revealed by the transportation survey. Nevertheless the disposition of land uses, particularly the very large industrial areas to the west, east and the south-east of the city centre, suggest that a major route will be required to the north of the site. In this respect the City proposal for the route 17/7 would appear to be appropriate both in location and character. On the other hand the other main east-west route proposed, the inner ring road, may not be an absolute necessity on this line. If it were so constructed, it would completely sever the hospital from the proposed medical school, unless it could be integrated in a more sympathetic manner than the surface route currently proposed. This could be achieved, either by tunneling under the site, or going through in deep cutting with broad decks of intercommunication across it.

2.4 We endorse the view that the Oxford Road radial should become the main internal distributor for the site and that the necessary steps should be taken to prevent its use by any traffic which is not destined for the University with the exception of buses and bicycles.

THE INTERNAL ROAD SYSTEM

3.1 Once a road network such as that described above, has been established the whole University site should be fairly free of traffic having no business within it. The internal road system should therefore be designed to cater for little more than the traffic which is generated by the uses within the site. The major generators will be the car parks used by the staff and students. In addition to the traffic resulting from these, there will be a certain amount of service traffic and business traffic, which although relatively minor in relation to individual buildings, will accumulate to sizeable proportions before it can be dispersed onto the network.

3.2 In broad terms the system proposed seems absolutely logical and correct for the following reasons:

(a) direct access is provided to the car parks from the City network;

(b) a separate system of service routes is provided, based upon a major distributory spine;

(c) direct links are provided from the residential districts on either side of the site to the City network and a separate link is provided across the site between these districts to facilitate short local movements both between themselves and to the communal facilities within the University site.

3.3 On the face of it, the direct links from the University car parks and the links from the residential areas to the City network, and the local cross route could be combined in one single cross route with relatively simple diamond interchanges at the points where the route intersects the City radials. But this is not considered to be a practical solution, because of the likely magnitude of the flows in and out of the car parks and because of the danger of inducing too great a cross flow of longer distance movements from the residential areas. We are well aware that this argument, based only upon conjecture, cannot be convincingly demonstrated without the aid of more precise traffic figures. When the overall transportation studies have been carried out and predictions of movement demands made, it will be a relatively simple matter to test these alternatives by normal methods of traffic assignment. Since it will be some time before this is possible, it is suggested that some

local traffic surveys are carried out as soon as possible in order to provide at least some approximate data for appraisal purposes. These surveys, which are described in more detail later, will also provide information suitable for:

(a) judging the affect of any short term traffic and environmental management measures;

(b) measuring the adequacy of the internal road system generally;

(c) assessing the car parking and loading and unloading requirements.

3.4 The only disadvantages of the proposals, as we understand them, are that:

(a) service traffic can only enter the precinct by the Oxford Road, having passed through the areas to the north and south. This could be overcome by linking the service road system with the car park access roads, thus providing a direct link for service vehicles, visitors, etc., to the north-south radials;

(b) It is anticipated that in general the users of the major car parks will be regular pass holders, well aware of the route they have to take to their designated parking place. Nevertheless it is considered that the absence of any connection between the Oxford Road spine and the car parks would be a serious handicap on such occasions when there are large numbers of visitors; during conferences held in the vacations and so on.

(c) The complete University site will in effect, create a very large barrier to local east-west movements in the vicinity and the one local cross connection, rather to the north, may not be sufficient for local needs. This will be particularly so if the ring road is re-routed to the south of the site, as would be desirable. In this event, it is suggested that a local cross route similar to that in the north, should be provided; again using suitable sections of the existing street system.

CAR PARKING PROPOSALS

4.1 The use of cars by students in some Universities and Colleges in this country is already approaching 40%. If no restraints are applied in these places the level could easily rise to at least 60% in the next 10 years. This is not to suggest that this scale of provision must be made in Manchester however. The density of development and the associated cost of providing the facilities, will be such that some limitation may be inevitable. In the interest of reducing the additional traffic load on the City road system, as many students as possible should be resident on the site, but this will have little affect on the demand for parking within the site since it is expected that the body of students in residence will tend to own as many cars as those outside.

4.2 The factors which will exert an influence on the use of cars by students, other than the level of ownership, include:

(i) the length of the journey from residence to College which in turn is dependent to a large extent upon the availability of lodgings;

(ii) the comparative convenience of public transport;

(iii) the relative costs of different modes of travel;

(iv) the capacity of the City road system and the degree of congestion upon it;

(v) the relative journey times using different modes of travel;

(vi) individual needs for the use of the car for another purpose before, during or after the journey to College;

(vii) the availability, location and cost of parking facilities at the University.

Of all these, perhaps the most important in so far as they are factors which may restrain the use of private cars, are the relative costs and times taken by different modes of travel and the availability, cost and convenience of parking. At the moment a large proportion of the present students are housed in lodgings to the south of the site, but few are within walking distance, so that the choice of mode depends a great deal upon the convenience of the public transport facilities.

4.3 Although it is possible for the University authorities to control the number of cars the students and staff may have on the site when in residence or use for

travelling to and fro, and although it is most probable that some such restraint will ultimately have to be exercised, we think that the right approach to this problem is to try and envisage what the maximum demand will be in the absence of such restraints, and then to proceed with the planning of the facilities in the full light of this knowledge. Without this, it would be impossible to measure the extent of the required restraints or whether in fact they would be reasonable or acceptable. Nor would it be possible to weigh up the disadvantages and inconveniences to the students against the advantages of having to provide fewer facilities for private vehicles.

4.4 Any estimates such as these have to be based on a great number of assumptions about future conditions and travel habits. Our own estimate, which we think may be on the conservative side, is that the long term plans should incorporate parking provision for at least 50% of the ultimate number of students (Undergraduates and Postgraduates) and 70% of the staff (Academic, Administrative and Domestic). Even at this level the number provided will fall short of the potential demand and the degree of restraint required will be quite high. Thought of in terms of todays problems and difficulties, this scale of provision may seem ridiculously high, but the developments which will take place on the site will be extremely permanent and, like the buildings before them, they are likely to remain for at least 50 years. We feel, therefore, that it would be a great mistake to under-estimate the demands of future generations and their capability of satisfying them. The very least we should do now is to create a framework in which it will be possible to expand the parking facilities at a later date.

4.5 On the question of parking charges, we see no logical reason at all for providing parking free. Any person, whether he be a student, member of the staff, or an ordinary member of the public, should surely expect to pay something for the privilege to be able to leave his car, just as, for instance, he would when leaving other pieces of his property at a left luggage office. The limitations of the site will inevitably dictate the use of multi-storey car parks. It would be quite unreasonable for these to be paid for out of public funds which would otherwise be available for educational purposes. Economic

charges, based upon the capital and running costs spread over a large proportion of the life of the structures, would not be all that high and would, in practice, only have a temporary restraining effect on the use of cars. If, as is anticipated, the demand eventually rises to exceed the supply, then restraint can be exercised either by a system of rationing according to need or by further increase in the charges.

4.6 In view of all this, it is considered that the extent to which grants are at present available for parking has no real bearing on the numbers of parking spaces that should be planned for, since once it is established that regular users will have to pay the economic cost of their parking, then these grants may be considered as being for the more legitimate purpose of providing places for visitors and others in real need.

PUBLIC TRANSPORT

5.1 Assuming that half the ultimate number of students are in residence and that of the remainder, 60% or so travel on foot or by car, either driving or as a passenger, then the residual load to be carried by the public transport services will remain quite considerable at around 4,000. This is more than at present and it is questionable whether such a load could be absorbed by the normal City services in the future unless a large number of special buses are provided for short periods only, particularly if the times of starting at the University coincide with normal working hours.

5.2 In this respect, it would be of great advantage to the bus operators, the University, and the operation of the road system generally, if a definite policy was adopted of delaying the start of the academic day until 9.30 or 10.00 and providing a substantial stagger of starting times between the various departments. In order to keep fares down at the same time as providing an ample and convenient service, special peak bus services will inevitably have to be subsidised. Any further restrictions of car usage, if considered, would imply further increases in special bus services and higher subsidies. The economics of subsidising bus services should therefore be very carefully weighed against the initial capital expenditure on car parking, in order to ensure that the subsidy costs over the years are not greater than the costs of providing more car parks.

PEDESTRIAN CIRCULATION

6.1 As such a large proportion of the site will be the subject of complete redevelopment, we feel that it is absolutely right to create a completely separate system of pedestrian circulation. Again, because of the site limitations and the necessary density of development, a two level solution seems most appropriate. Such a system should be capable of expansion over the whole site so that ultimately it would connect all the major pedestrian generators to one another. It should also have frequent links with the residential communities to the east and west of the site, passing uninterrupted over the distributory traffic routes along the lines of Upper Brook Street and Cambridge Street. Both of these communities, consisting of up to 4,500 families, could look towards the University site for a large number of their community facilities including shopping and entertainment.

6.2 Within the pedestrian circulation system, there will be a need to develop a hierarchic structure which is obvious to the eye. The major pedestrian routes should be continuous and follow the main corridors of movement, connecting to the secondary footpaths and thence to other minor ways. This type of system will provide for ease of movement and simplify any system of direction signs.

PROGRAMMING

7.1 So far, we have discussed the developments which will take place by 1972 and certain aspects of the longer term plans. The most critical period, in our view, will be that before 1972. During this period of intense redevelopment, little improvement in the City road system will be possible. Nevertheless both City traffic and University traffic will be building up and some fairly drastic measures will have to be taken to keep the traffic flowing and to prevent a further deterioration of the environment.

7.2 The immediate future of the Oxford Road is perhaps the most important consideration. Apart from anything else while the proposed large scale building operations are going on, there will be an immediate need to decrease the amount of traffic using the Oxford Road. It may in fact have to be closed altogether during certain periods. Thereafter we would recommend a policy whereby a much decreased level of traffic is maintained so that conditions along the street will remain compatible with the needs of the growing University.

7.3 The measures required to bring this about would, in fact, be part of the long term policy of diverting extraneous traffic from the University site as a whole. At first this will be extremely difficult without an adequate network. Nevertheless it is suggested that something could be done immediately to "up grade" the main radials, Upper Brook Street and Cambridge Street, by closing most of the side roads which at present connect into them. This would be the first step towards achieving a proper distribution system for the area adjoining the University site and studies should be put in hand to determine which of these many connections should remain as local distributors. As mentioned previously special surveys are required to determine how much traffic, at present proceeding along the Oxford Road, is actually passing through the site and how much terminates there and also to ascertain the extent of the east-west movements which will also be affected by any such traffic and environmental management measures.

SUGGESTED TRAFFIC SURVEYS

8.1 In order to quantify certain of the aspects upon which we have commented it will be necessary, as mentioned previously, to carry out a series of traffic surveys. The following are recommended:

(i) Survey of internal traffic movements

The object of these surveys would be to build up a picture of the travel habits of the present day students and staff and of the traffic of various kinds which is generated by the existing University and College developments. It has been found that the most comprehensive way of gathering such information is by issuing questionnaire forms to all members of staff and all students and log sheets to people responsible for the reception of goods, fuel etc. The questionnaire can be divided into three parts: the first seeking general information such as the home and term time address of the recipient, the time of arrival and departure to and from the site on a specified day; whether they run a private motor vehicle; what is their usual mode of travel; how long their journey normally takes; and so on. The second part would be specifically for those who normally travel by public transport and would seek information about the amount spent on fares and, if they do run a private vehicle, why they did not use it for the journey to College. The third part would be for those who normally travel to College by private transport and again would seek information about the cost of travel, the cost of fares if they had travelled by public transport and the time it would have taken them if they had travelled by this means; where they park their vehicle; whether it is within the College grounds or in nearby streets and possibly asking them what their response would be to the application of various scales of charges for the privilege of parking.

A different form of questionnaire would be required for people actually residing within the University or College and would simply ask whether or not they owned a car, whether they kept it on the site during term time, if so, where they parked it and again what their response would be to the application of various scales of charges.

On the same day, or days, that the questionnaires and log sheets are

issued a continuous count, subdivided into half hour periods, should be taken of all traffic entering and leaving the site as an overall check.

(ii) Surveys of external traffic movements

The object of these would be to determine how much traffic is passing through the site at the moment, and how much terminates within it and within the residential areas adjacent. They would also give some guidance as to the function of the major cross route proposed on the line of the Booth Street and in particular as to whether it should be established simply as a local link between the University site and the adjacent areas with no direct connection to the radials. The method of survey suggested is to take the registration numbers of a sample of vehicles on a selected day entering and leaving first, a wide cordon encompassing the University site and the adjacent residential development areas and secondly a smaller cordon encompassing the University site alone.

8.2 We should be pleased to advise further on the details of these surveys but wish to make it quite clear that, at present, we are unfortunately not in a position to actually carry them out.

SUMMARY AND CONCLUSIONS

9.1 One of the greatest difficulties in drawing up proposals for the redevelopment of this site, or any other site in the City, must be the uncertainties concerning the overall City road system. These uncertainties will persist until the results of the proposed conurbation transportation studies are made known.

9.2 We have endeavoured to anticipate the outcome of these studies and have concluded that:

(i) the whole site can and should be considered as an "Environmental Area" from which extraneous traffic is diverted;

(ii) any primary network routes, should be located outside the site. We recognise that an exception may have to be made to this with the proposed route 17/7, which falls between the main University site and the site of the College of Technology;

(iii) The function of the bordering north-south radials, on the lines of Upper Brook and Cambridge Street, should eventually be confined to that of "district distribution" and that access to them should be severely restricted;

(iv) The ultimate function of the Oxford Road, passing through the centre of the site, should be that of a distributor for purely local traffic within the site. The only exception to this would be that City bus services and cycles should be allowed to pass through the site along its whole length.

(v) Because of the magnitude of the flows generated by the car parks within the site, these should be concentrated within specific locations and direct means of access provided between them and the bordering radials.

9.3 On other matters relating to the site itself, we have concluded that:

(i) The plans for the ultimate development of the site should, if possible, include a parking provision for at least 50% of the students and 70% of the staff.

(ii) That charges should be levied for the privilege of being able to park regularly on the site.

(iii) That public transport will continue to have a large part to play in transporting people to and from the site, despite this seemingly generous

provision of car parks.

(iv) That every effort should be made to make public transport a more convenient form of travel than the car by maintaining direct routes to the site for buses, by keeping the fares low and by providing frequent services.

(v) That immediate steps be taken to reduce the magnitude of the traffic flow on the Oxford Road, and other routes within the site, by means of a combination of traffic and environmental management techniques, thus forming an embryo system of networks and environmental areas.

9.4 We have also concluded that it will be possible to collect sufficient data for quantitative analyses to be made of future generation of University traffic and of the influence that the site redevelopment will have upon the pattern of movement of local traffic. The analysis of the broader traffic issues involved will not be possible until the transportation studies for the conurbation have been completed.

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